EMERGENCY RESPONSE REPORT

FOR
CITGO REFINERY FIRE
1801 NUECES BAY BLVD
CORPUS CHRISTI, NUECES COUNTY, TEXAS

Prepared for

U.S. Environmental Protection Agency Region 6
Linda Carter, Project Officer
1445 Ross Avenue
Dallas, Texas 75202

Contract No. EP-W-06-042
TDD No. TO-0001-09-07-07
WESTON W.O. No. 20406.012.001.0451.01
NRC No. 912017
CERCLIS No. N/A
FPN N/A
EPA OSC: Mark Hayes
START-3 PTL: Thomas Walzer

Submitted by

Weston Solutions, Inc.
Robert Beck, VP, P.E., Program Manager
70 NE Loop 410, Suite 600
San Antonio, Texas 78216
(210) 308-4300

02 December 2009

PROJECT SUMMARY

This final report describes the U.S. Environmental Protection Agency (EPA) response actions for a Tier 1 Response at the CITGO Refinery Fire, East Plant. The CITGO Refinery, East Plant is located at 1801 Nueces Bay Blvd in Corpus Christi, Nueces County, Texas. The detailed report follows this page, and all attachments are provided as separate portable document format (PDF) files.

On 19 July 2009, the National Response Center (NRC) received a report (NRC Report No. 912017) from CITGO, the Potentially Responsible Party (PRP), of an equipment failure that resulted in a butane and hydrogen fluoride release and fire at their Corpus Christi Refinery, East Plant. CITGO used a constant water-spray system to stop the fire and adsorb any gaseous hydrogen fluoride. Firefighting/vapor suppression water was pumped into the wastewater treatment system until that was full. Firefighting/vapor suppression water was then placed into tank secondary containments prior to treatment and/or discharge.

On 20 July 2009, the United States Environmental Protection Agency (EPA) and the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, Weston Solutions, Inc., responded to the site, and on 21 July 2009 began off-site air monitoring for volatile organic compounds, carbon monoxide, and hydrogen fluoride. In addition, START-3 collected a water sample from Outfall 001 at the Refinery's wastewater treatment plant. The agencies responding to the incident included the Texas Commission on Environmental Quality (TCEQ) and the United States Chemical Safety and Hazard Investigation Board (CSB).

START-3 was released from the site at 1000 hours on 31 July 2009 after EPA OSC Hayes determined that the fire was extinguished and there was no potential for additional releases of hazardous substances or pollutants into the environment.

This final report was prepared by Weston Solutions, Inc. under Contract No. EP-W-06-042 for EPA Region 6. The EPA On-scene Coordinator (OSC) was Mark Hayes, and the START-3 Project Team Leader (PTL) was Thomas Walzer.

☐ The EPA Task Monitor did not provide final approval of this report prior to the completion date of the work assignment. Therefore, Weston Solutions, Inc. has submitted this report absent the Task Monitor's approval.

☒ The EPA Task Monitor has provided final approval of this report. Therefore, Weston Solutions, Inc. has submitted this report with the Task Monitor's approval.

TABLE OF CONTENTS

1. PROJECT IDENTIFICATION

Date: 02 December 2009

To: Mark Hayes, On-scene Coordinator (OSC)
U.S. Environmental Protection Agency (EPA)
Region 6, Prevention and Response Branch

Through: Linda Carter, Project Officer (PO)
EPA Region 6, Program Management Branch

Through: Robert Beck, VP, P.E., Weston Solutions, Inc. (WESTON®)
EPA Region 6, Superfund Technical Assessment and Response Team (START-3)
Program Manager

From: Thomas Walzer, WESTON
EPA Region 6, START-3 Project Team Leader

Subject: Emergency Response: CITGO Refinery Fire
1801 Nueces Bay Boulevard, Corpus Christi, Nueces County, Texas
Contract No. EP-W-06-042
TDD No. TO-0001-09-07-07
W.O. No. 20406.012.001.0451.01
NRC No. 912017
FPN N/A
CERCLIS ID N/A
Latitude 27.8093090º North
Longitude 97.4266880º West

Geographic coordinates of the incident location were determined by START-3 members using a hand-held Global Positioning System (GPS) based on the World Geodetic System – 1984 (WGS-84) with accuracy estimated at less than 50-feet circular probable error.

2. INTRODUCTION

On 20 July 2009, at 1400 hours, the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, Weston Solutions Inc. (WESTON), was activated by the EPA Region 6 Prevention and Response Branch (EPA-PRB) to respond to a refinery fire located at 1801 Nueces Bay Boulevard, Corpus Christi, Nueces County, Texas. START-3 responded to the incident with Tier 2 capabilities. START-3 was tasked to collect information, document site activities (written and photographic), and conduct off-site air monitoring for hydrogen fluoride

(HF) and Volatile Organic Compounds (VOCs). On 20 July 2009, START-3 Thomas Walzer and Patrick Bond, and EPA OSC Mark Hayes arrived on-site. The Texas Commission on Environmental Quality (TCEQ) representative, Roger Bennett, was already on-site. TCEQ indicated that the fire started at 0834 hours on 19 July 2009.

3. BACKGROUND

At approximately 0830 hours on 19 July 2009, an equipment failure occurred that resulted in a butane release and fire at the CITGO Petroleum Corporation (CITGO), Corpus Christi, Texas Refinery, East Plant. CITGO issued a shelter-in-place for the adjacent refinery, Flint Hills, and the shelter-in-place was lifted on 19 July 2009 at 1030 hours. At approximately 1108 hours CST on 19 July 2009, the National Response Center (NRC) received a report (NRC Report No. 912017, Attachment K) from CITGO, the Potentially Responsible Party (PRP). CITGO also reported that a very small amount of hydrogen fluoride was released with the butane. The CITGO Corpus Christi Refinery, East Plant is located at 1801 Nueces Bay Boulevard in a mixed-use residential and commercial area on the northwest side of Corpus Christi, Nueces County, Texas (see Attachment A - Site Location Map and Attachment B - Site Area Map). The facility is a refinery of crude oil. The water used for firefighting and vapor suppression was being stored in tanks and secondary containment at the facility. On 19 July 2009, the refinery used fresh water for firefighting/vapor suppression water. Beginning on 20 July 2009, saltwater from the Industrial Canal (intercoastal waterway) was used for firefighting/vapor suppression. Initial firefighting/vapor suppression water (fresh water) was placed in the two wastewater surge tanks, Tank 116 and Tank 117; when these tanks were full, the tanks were drained into their secondary containment and the empty tanks were filled again. The firefighting/vapor suppression water in Tank 116 and 117 was being treated in the wastewater treatment system.

4. ACTIONS TAKEN

On 20 July 2009, EPA OSC Mark Hayes requested START-3 to mobilize to the refinery in Corpus Christi, Nueces County, Texas. At 2000 hours on 20 July 2009, START-3 Thomas Walzer and Patrick Bond met at the refinery with EPA OSC Mark Hayes and TCEQ representative Roger Bennett to obtain information regarding events of the fire. Mr. Bennett

indicated that CITGO had not determined the cause of the fire as yet and the fire was still burning.

EPA began off-site air monitoring on 21 July 2009 and ended on 31 July 2009. The locations monitored are shown on the map presented in Attachment C, and the air monitoring results are included in Attachment D. START-3 monitored air off-site for hydrogen fluoride and volatile organic compounds; this air monitoring did not detect any constituents above background levels.

On 21 July 2009, EPA collected a water sample from the Refinery's Outfall 001 that represented the treated refinery effluent and the initial firefighting/vapor suppression water. The sample was analyzed for fluorides by TestAmerica of Corpus Christi (Attachment E), and the result was 76 milligrams per liter (mg/L). The Texas Pollutant Discharge Elimination System (TPDES) permit limit is 10 mg/L. CITGO reported a discharge violation to the TPDES permit from Outfall 001 based on CITGO's 24-hour composite of 55.7 mg/L fluoride on 21 July 2009. On 21 July 2009, the United States Chemical Safety and Hazard Investigation Board (CSB) arrived on-site and began interviewing personnel. Fires continued on the Alkylation Unit; CITGO had isolated feeds to this unit, so the releases were thought to be only of materials contained in the unit. CITGO reported that their air monitoring showed that no HF was leaving the unit as a vapor, indicating that the vapor suppression activities were adsorbing the HF. CITGO conducted daily meetings with the TECQ and EPA representatives to convey the latest information. Photographic documentation is included Attachment F; a summary timeline of events and information from 21 to 30 July 2009 is presented in Attachment G; a CITGO-provided timeline that covers from 19 to 20 July 2009 is presented in Attachment H; and the pollution reports (POLREPs) are provided in Attachment I.

On 22 July 2009, ENTRIX, a subcontractor to CITGO, began a Baseline Biological Assessment to evaluate the effect of the discharge of saltwater used for vapor suppression on the Industrial Canal. At 1915 hours on 22 July 2009, CITGO began discharging saltwater used for vapor suppression through Outfall 004. CITGO sampled this water at 4-hour intervals, and TCEQ sampled the water twice daily. CITGO analyzed their samples for the stormwater permit parameters plus pH and fluoride. TCEQ analyzed these samples for the process water permit

parameters that include pH and fluoride. On 25 July 2009, CITGO estimated that 12,000,600 gallons of saltwater used for vapor suppression was discharged through Outfall 004.

SealTech, contracted by CITGO, arrived on-site on 23 July 2009. SealTech is a company that specializes in sealing leaks on damaged equipment under hazardous conditions. At 1730 hours on 28 July 2009, SealTech completed sealing the damaged equipment in the alkylation unit, and after repairs were made to the unit's internal HF monitoring system, the "all clear" was sounded at 2025 hours. CITGO personnel began de-inventory of the unit on 30 July 2009. The de-inventory consisted of removal of feedstock and product followed by flushing the Alkylation Unit with a base to neutralize any HF residuals.

EPA maintained the off-site monitoring until 31 July 2009. START-3 was released from the site at 1000 hours on 31 July 2009 after EPA OSC Hayes determined that the fire was extinguished and there was no potential for additional releases of hazardous substances or pollutants into the environment.

This final report was prepared as part of the requirements of TDD No. TO-0001-09-07-07 and serves as documentation of work completed to date.

5. LIST OF ATTACHMENTS

A. Site Location Map

B. Site Area Map

C. Air Monitoring Locations

D. Start-3 Air Monitoring Results

E. TestAmerica Analytical Report

F. Digital Photographs

G. EPA Timeline

H. CITGO Timeline

I. Pollution Reports (POLREPs)

J. START-3 Logbook

K. NRC Report Number 912017

L. TDD No. TO-0001-09-07-07 and Amendment A

ATTACHMENT A

SITE LOCATION MAP

0 3 6

SCALE IN MILES

LEGEND

SITE LOCATION

N

NRC: 912017
FPN No: N/A
TDD: TO-0001-09-07-07
Contract No: EP-W-06-042

SOURCE: ESRI IMAGERY

US EPA REGION 6
START- 3

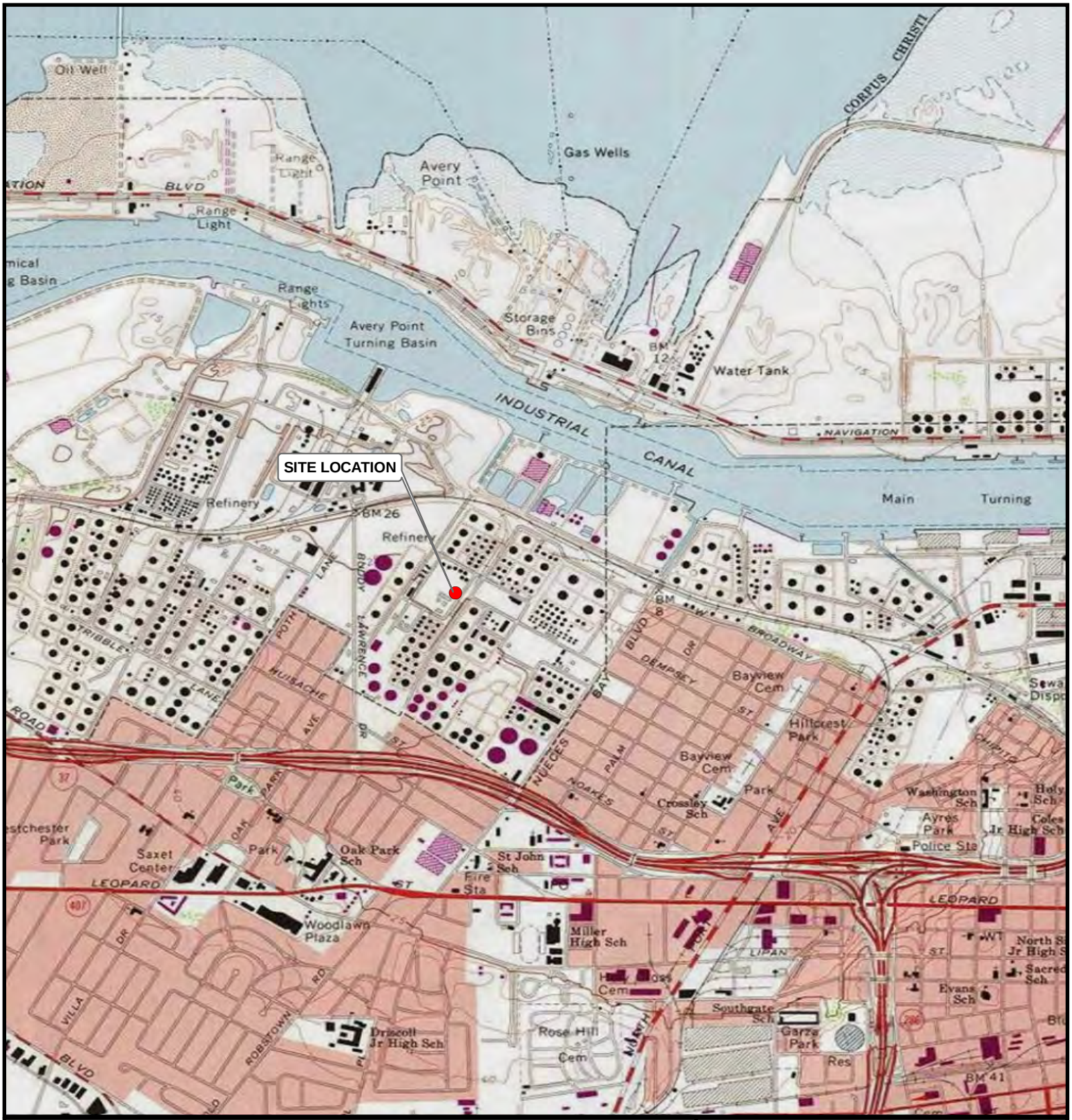
Attachment A
Site Location Map
CITGO Refinery Fire
CITGO Corpus Christi Refinery, East Plant
1801 Nueces Bay Blvd.
Corpus Christi, Nueces County, Texas

DATE	PROJECT NO	SCALE
DEC 2009	20406.012.001.0451.01	AS SHOWN

File: \\shou01\data\20406_START3_R6\CITGO REFINERY FIRE-CORPUS CHRIST\GIS\ATTACHMENT_A_SITE_LOCATION_MAP.mxd, 30-Nov-09 11:06, bondp

ATTACHMENT B

SITE AREA MAP


SITE LOCATION
Oil Well
Range Light
Avery Point
Gas Wells
Range Lights
Avery Point Turning Basin
Storage Bins
Water Tank
INDUSTRIAL CANAL
NAVIGATION
CORPUS CHRISTI
Refinery
BM 26
Main Turning
BROADWAY
Bayview Cem
Hillcrest Park
Crossley Sch
Washington Sch
Ayres Park
Police Sta
Saxet Center
Oak Park Sch
St John Sch
Fire Sta
Woodlawn Plaza
Miller High Sch
Holy Ghost Cem
Southgate Sch
Garza Park
Evans Sch
Driscoll Jr High Sch
Rose Hill Cem
BM 41
LEOPARD
BLVD
ROAD
0
2,000
4,000
SCALE IN FEET
LEGEND
SITE LOCATION
TEXAS
N
NRC: 912017
FPN No: N/A
TDD: TO-0001-09-07-07
Contract No: EP-W-06-042
SOURCE: ESRI IMAGERY
US EPA REGION 6
START- 3
Attachment B
Site Area Map
CITGO Refinery Fire
CITGO Corpus Christi Refinery, East Plant
1801 Nueces Bay Blvd.
Corpus Christi, Nueces County, Texas
DATE
DEC 2009
PROJECT NO
20406.012.001.0451.01
SCALE
AS SHOWN
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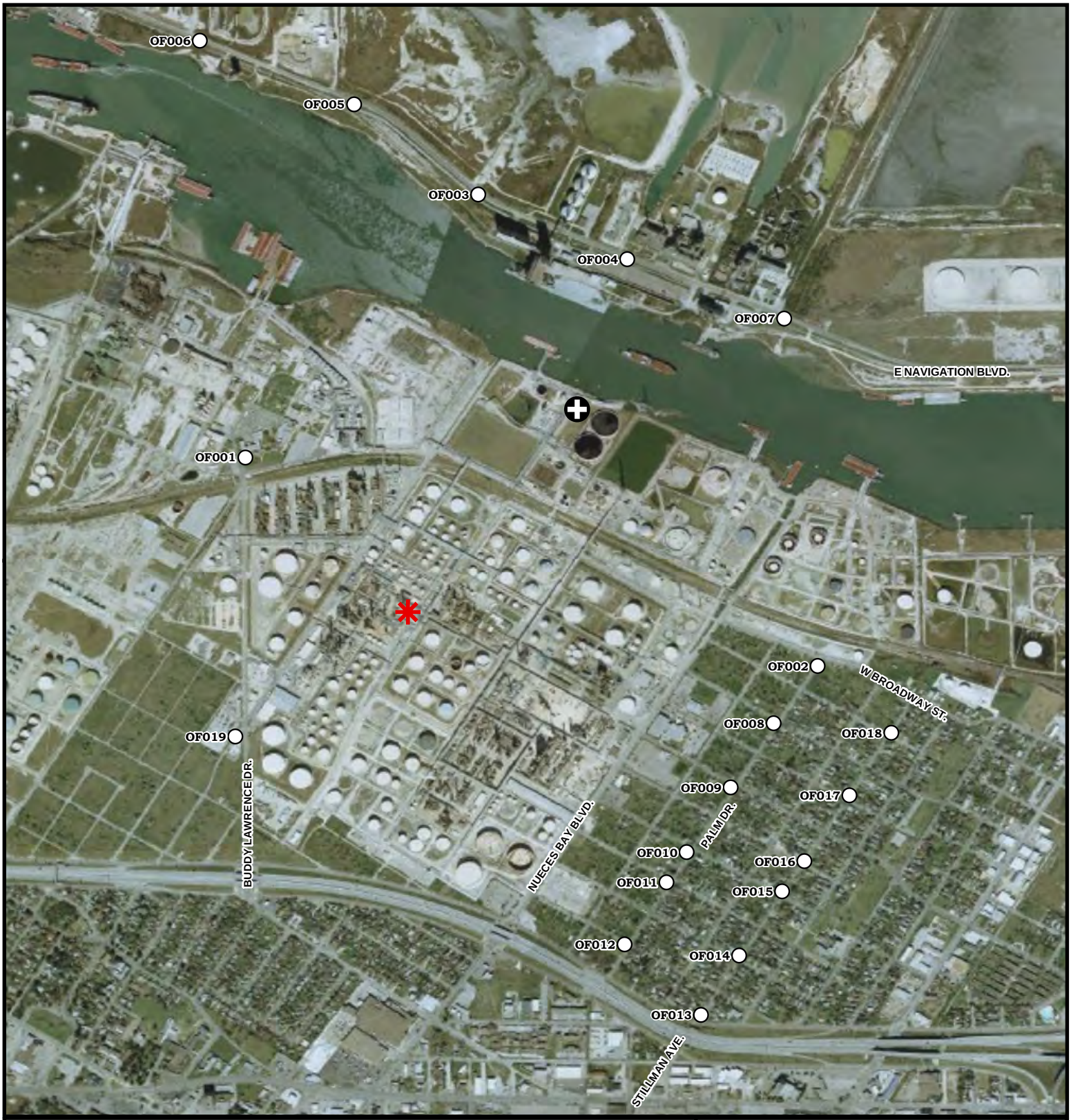
ATTACHMENT C

AIR MONITORING LOCATIONS



0 1,250 2,500

SCALE IN FEET

LEGEND

- ALKYLATION UNIT
- AIR MONITORING LOCATIONS
- OUTFALL 001

N

NRC: 912017
FPN No: N/A
TDD: TO-0001-09-07-07
Contract No: EP-W-06-042

SOURCE: ESRI IMAGERY

US EPA REGION 6
START- 3

Attachment C
Air Monitoring Locations
CITGO Refinery Fire
CITGO Corpus Christi Refinery, East Plant
1801 Nueces Bay Blvd.
Corpus Christi, Nueces County, Texas

DATE	PROJECT NO	SCALE
DEC 2009	20406.012.001.0451.01	AS SHOWN

File: \\shou01\data\20406_START3_R6\CITGO REFINERY FIRE-CORPUS CHRIST\GIS\ATTACHMENT_C_AIR_MONITORING_LOCATIONS.mxd, 02-Dec-09 10:37, bondp

ATTACHMENT D

START-3 AIR MONITORING RESULTS

Attachment D
START-3 Air Monitoring Results
EPA and START-3
CITGO Refinery Fire, East Plant
Corpus Christi, Nueces County, Texas

Monitoring Date	Monitoring Time	Location	Chlorine (Cl2) (PPM)	CO (PPM)	Hydrogen Fluoride (PPM)	Hydrogen Sulfide (PPM)	LEL (%)	Oxygen (%)	VOC (PPM)
7/21/2009	1552	OF001	-	0 U	1.5 U	0 U	-	20.9	0 U
7/21/2009	1608	OF002	-	0 U	1.5 U	0 U	-	20.9	0 U
7/21/2009	1629	OF003	-	0 U	1.5 U	0 U	-	20.9	0 U
7/21/2009	1634	OF004	-	0 U	1.5 U	0 U	-	20.9	0 U
7/21/2009	1640	OF005	-	0 U	1.5 U	0 U	-	20.9	0 U
7/22/2009	0835	OF006	-	0 U	1.5 U	0 U	-	20.9	1.3
7/22/2009	0838	OF004	-	0 U	1.5 U	0 U	-	20.9	3.2
7/22/2009	0844	OF003	-	0 U	1.5 U	0 U	-	20.9	2.7
7/22/2009	0848	OF005	-	0 U	1.5 U	0 U	-	20.9	2.3
7/22/2009	0914	OF001	-	0 U	1.5 U	0 U	-	20.9	0 U
7/22/2009	0930	OF002	-	0 U	1.5 U	0 U	-	20.9	0 U
7/23/2009	0843	OF006	-	0 U	1.5 U	0 U	-	20.9	7.1
7/23/2009	0851	OF005	-	0 U	1.5 U	0 U	-	20.9	2.9
7/23/2009	0858	OF003	-	0 U	1.5 U	0 U	-	20.9	2.4
7/23/2009	0903	OF004	-	0 U	1.5 U	0 U	-	20.9	1.6
7/23/2009	0920	OF001	-	0 U	1.5 U	0 U	-	20.9	0 U
7/23/2009	0931	OF002	-	0 U	1.5 U	0 U	-	20.9	0 U
7/24/2009	1008	OF006	-	0 U	1.5 U	0 U	-	20.9	2.3
7/24/2009	1018	OF005	-	0 U	1.5 U	0 U	-	20.9	1
7/24/2009	1027	OF003	-	0 U	1.5 U	0 U	-	20.9	0.1
7/24/2009	1742	OF006	0 U	-	0 U	-	0 U	20.9	1.1
7/24/2009	1748	OF005	0 U	-	0 U	-	0 U	20.9	0.9
7/24/2009	1752	OF003	0 U	-	0 U	-	0 U	20.9	0.8
7/24/2009	1805	OF001	0 U	-	0 U	-	0 U	20.9	0.3
7/24/2009	1815	OF002	0 U	-	0 U	-	0 U	20.9	0.1
7/25/2009	0956	OF006	0 U	-	0 U	-	0 U	20.9	1.8
7/25/2009	1001	OF005	0 U	-	0 U	-	0 U	20.9	2.2
7/25/2009	1005	OF003	0 U	-	0 U	-	0 U	20.9	2.2
7/25/2009	1008	OF004	0 U	-	0 U	-	0 U	20.9	1.9
7/25/2009	1021	OF002	0 U	-	0 U	-	0 U	20.9	1
7/25/2009	1030	OF001	0 U	-	0 U	-	0 U	20.9	0.7
7/28/2009	1601	OF001	0 U	-	0 U	-	0 U	20.9	1
7/28/2009	1609	OF002	0 U	-	0 U	-	0 U	20.9	0.6
7/28/2009	1628	OF005	0 U	-	0 U	-	0 U	20.9	0 U
7/28/2009	1632	OF006	0 U	-	0 U	-	0 U	20.9	0 U
7/28/2009	1652	OF003	0 U	-	0 U	-	0 U	20.9	0 U
7/29/2009	0856	OF002	0 U	-	0 U	-	0 U	20.9	1
7/29/2009	0907	OF001	0 U	-	0 U	-	0 U	20.9	1
7/29/2009	0923	OF006	0 U	-	0 U	-	0 U	20.9	0.9
7/29/2009	0929	OF005	0 U	-	0 U	-	0 U	20.9	1.3
7/29/2009	0930	OF003	0 U	-	0 U	-	0 U	20.9	0.5
7/30/2009	1107	OF002	0 U	-	0 U	-	0 U	20.9	1.3
7/30/2009	1116	OF001	0 U	-	0 U	-	0 U	20.9	0.8
7/30/2009	1141	OF006	0 U	-	0 U	-	0 U	20.9	0.3
7/30/2009	1146	OF005	0 U	-	0 U	-	0 U	20.9	0.2
7/30/2009	1150	OF007	0 U	-	0 U	-	0 U	20.9	0 U

Attachment D
START-3 Air Monitoring Results
EPA and START-3
CITGO Refinery Fire, East Plant
Corpus Christi, Nueces County, Texas

Monitoring Date	Monitoring Time	Location	Chlorine (Cl2) (PPM)	CO (PPM)	Hydrogen Fluoride (PPM)	Hydrogen Sulfide (PPM)	LEL (%)	Oxygen (%)	VOC (PPM)
7/30/2009	1530	OF002	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1535	OF008	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1543	OF009	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1549	OF010	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1553	OF011	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1600	OF012	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1604	OF013	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1611	OF014	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1616	OF015	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1619	OF016	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1622	OF017	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1626	OF018	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1640	OF001	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1722	OF006	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1740	OF007	0 U	-	0 U	-	0 U	20.9	0 U
7/30/2009	1746	OF005	0 U	-	0 U	-	0 U	20.9	0 U
7/31/2009	1040	OF001	0 U	-	0 U	-	0 U	20.9	0 U
7/31/2009	1050	OF019	0 U	-	0 U	-	0 U	20.9	1.3
7/31/2009	1056	OF002	0 U	-	0 U	-	0 U	21.5	0 U
7/31/2009	1059	OF008	0 U	-	0 U	-	0 U	21.6	0 U
7/31/2009	1101	OF009	0 U	-	0 U	-	0 U	21.7	0 U
7/31/2009	1103	OF010	0 U	-	0 U	-	0 U	21.8	0 U
7/31/2009	1105	OF011	0 U	-	0 U	-	0 U	21.8	0 U
7/31/2009	1107	OF012	0 U	-	0 U	-	0 U	21.8	0 U
7/31/2009	1111	OF013	0 U	-	0 U	-	0 U	21.9	0 U
7/31/2009	1113	OF014	0 U	-	0 U	-	0 U	21.9	0 U
7/31/2009	1115	OF015	0 U	-	0 U	-	0 U	22.1	0 U
7/31/2009	1116	OF016	0 U	-	0 U	-	0 U	22.1	0 U
7/31/2009	1121	OF017	0 U	-	0 U	-	0 U	22.1	0 U
7/31/2009	1129	OF018	0 U	-	0 U	-	0 U	22.2	0 U
7/31/2009	1138	OF006	0 U	-	0 U	-	0 U	22.4	0 U
7/31/2009	1140	OF005	0 U	-	0 U	-	0 U	22.4	0 U
7/31/2009	1143	OF003	0 U	-	0 U	-	0 U	22.4	0 U
7/31/2009	1146	OF004	0 U	-	0 U	-	0 U	22.4	0 U
7/31/2009	1148	OF007	0 U	-	0 U	-	0 U	22.4	0 U

ATTACHMENT E

TESTAMERICA ANALYTICAL REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 560-16462-1

SDG Number: July 21, 2009

Job Description: 912017 Fluoride Analysis

For:
Weston Solutions, Inc.
5599 San Felipe
Suite 700
Houston, TX 77056

Attention: Ms. Kristie Warr

Approved for release.
Timothy L. Kellogg
Project Manager II
7/22/2009 1:58 PM

Timothy L. Kellogg
Project Manager II
tim.kellogg@testamericainc.com
07/22/2009

The test results entered in this report meet all NELAC requirements for accredited parameters. Any exceptions to NELAC requirements are noted in the report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. TestAmerica Corpus Christi Certifications and Approvals: NELAC TX T104704210-TX, NELAC KS E-10362, Oklahoma 9968, USDA Soil Permit P330-08-00033.

Receipt

All samples were received in good condition. No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: Weston Solutions, Inc.

Job Number: 560-16462-1
Sdg Number: July 21, 2009

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
560-16462-1	**CC-01 OUTFALL 001**				
Fluoride		76	20	mg/L	340.2

METHOD SUMMARY

Client: Weston Solutions, Inc.

Job Number: 560-16462-1
Sdg Number: July 21, 2009

Description	Lab Location	Method	Preparation Method
Matrix Water			
Fluoride	TAL CC	MCAWW 340.2	

Lab References:

TAL CC = TestAmerica Corpus Christi

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

METHOD / ANALYST SUMMARY

Client: Weston Solutions, Inc.

Job Number: 560-16462-1
Sdg Number: July 21, 2009

Method	Analyst	Analyst ID
MCAWW 340.2	Zwierzykowski, Hanna M	HMZ

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 560-16462-1
Sdg Number: July 21, 2009

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
560-16462-1	CC-01 Outfall 001	Water	07/21/2009 1000	07/21/2009 1538

Client: Weston Solutions, Inc.

Job Number: 560-16462-1
Sdg Number: July 21, 2009

General Chemistry

Client Sample ID: **CC-01 Outfall 001**

Lab Sample ID: 560-16462-1
Client Matrix: Water

Date Sampled: 07/21/2009 1000
Date Received: 07/21/2009 1538

Analyte	Result	Qual	Units	RL	Dil	Method
Fluoride	76		mg/L	20	200	340.2

Analysis Batch: 560-37875 Date Analyzed: 07/21/2009 1615

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

QUALITY CONTROL RESULTS

Client: Weston Solutions, Inc.

Job Number: 560-16462-1
Sdg Number: July 21, 2009

Method Blank - Batch: 560-37875

Method: 340.2
Preparation: N/A

Lab Sample ID: MB 560-37875/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/21/2009 1615
Date Prepared: N/A

Analysis Batch: 560-37875
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Fluoride	<0.10		0.10

Lab Control Sample - Batch: 560-37875

Method: 340.2
Preparation: N/A

Lab Sample ID: LCS 560-37875/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/21/2009 1615
Date Prepared: N/A

Analysis Batch: 560-37875
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Fluoride	0.800	0.781	98	85 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 560-37875

Method: 340.2
Preparation: N/A

MS Lab Sample ID: 560-16462-1
Client Matrix: Water
Dilution: 200
Date Analyzed: 07/21/2009 1615
Date Prepared: N/A

Analysis Batch: 560-37875
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 560-16462-1
Client Matrix: Water
Dilution: 200
Date Analyzed: 07/21/2009 1615
Date Prepared: N/A

Analysis Batch: 560-37875
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Fluoride	97	98	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Ambient Just Sampled 7-21-09 No. 30522

CHAIN OF CUSTODY RECORD

CUSTOMER INFORMATION	PROJECT INFORMATION
COMPANY: Weston Solutions	PROJECT NAME/NUMBER: 912017
SEND REPORT TO: Kristy Ware	**BILLING INFORMATION**
ADDRESS: 5599 San Felipe Suite #200 Houston TX 77056	BILL TO: Kristy Ware
	ADDRESS:
PHONE: 713-985-6636	PHONE:
FAX: 713-985-6703	FAX: PO NO:

LAB JOB NO. 16462

SAMPLE NO.	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER	PRESERV.	NUMBER OF CONTAINERS	ANALYSIS/METHOD REQUEST: Florida (24-hour)	REMARKS/PRECAUTIONS
CC-01	Outfall 001	07/21/2009	1000	Water	1L Plastic	None	1	X	

SAMPLER: SHIPMENT METHOD: AIRBILL NO.:

REQUIRED TURNAROUND* ☐ SAME DAY ☑ 24 HOURS ☐ 48 HOURS ☐ 72 HOURS ☐ 5 DAYS ☐ 10 DAYS ☐ ROUTINE ☐ OTHER_____

1. RELINQUISHED BY: Thomas Walker	DATE	2. RELINQUISHED BY:	DATE	3. RELINQUISHED BY:	DATE
SIGNATURE: Thomas Walker	07/21/2009	SIGNATURE:		SIGNATURE:	
PRINTED NAME/COMPANY: Weston Solutions	TIME 1538	PRINTED NAME/COMPANY:	TIME	PRINTED NAME/COMPANY:	TIME
1. RECEIVED BY:	DATE	2. RECEIVED BY:	DATE	3. RECEIVED BY:	DATE
SIGNATURE: Allie J Magee	072109	SIGNATURE:		SIGNATURE:	
PRINTED NAME/COMPANY: TACC	TIME 1538	PRINTED NAME/COMPANY:	TIME	PRINTED NAME/COMPANY:	TIME

*RUSH TURNAROUND MAY REQUIRE SURCHARGE

07/22/2009

Page 11 of 12

TestAmerica
1733 N. Padre Island Drive
Corpus Christi, TX 78408
Phone: 361.289.2673 /Fax: 361.289.2471

Login Sample Receipt Check List

Client: Weston Solutions, Inc.

Job Number: 560-16462-1
SDG Number: July 21, 2009

Login Number: 16462
List Source: TestAmerica Corpus Christi
Creator: Magee, Alice J.
List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	Ambient
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

ATTACHMENT F

DIGITAL PHOTOGRAPHS

To View Photographs:

1) Open the folder: Attachment F Digital Photographs

2) Double Click on the file: Click here to view Photo


23 8:48AM

23 9:00AM


23 9:20AM


23 8:48AM


23 9:07AM


23 9:20AM


23 9:07AM


23 9:20AM


23 9:07AM


SHARING THE EARTH
WITH RESPONSIBILITY
CITGO
22 8:16AM


23 9:00AM


23 9:32AM


23 8:53AM


C
C
P
C
C
A
23 8:45AM


23 9:12AM


23 8:53AM


CITGO
EAST G
NO
22 8:17AM


23 9:00AM


WARNING
GAS
PIPELINE
23 9:08AM


ENTEX
23 9:07AM


23 8:53AM

ATTACHMENT G

EPA TIMELINE

Attachment G
EPA Timeline
CITGO Refinery Fire, East Plant
Corpus Christi, Nueces County, Texas

Date	Time	Log
07/21/2009	0700	Informational meeting attended by CITGO, TCEQ, and EPA representatives. Fire Fighting/Vapor Suppression water being pumped to the secondary containment of tanks 301 and 302. From the secondary containment of tanks 301 and 302 it is being pumped to secondary containments of 1022 and 1023, and 221 and 222. The firefighting/vapor suppression water stored in the secondary containment of Tanks 117 and 116 has low pH, 2.9. CITGO will use Soda Ash to neutralize, but the soda ash has not arrived yet. The fire continues in Area 83 of the Alkylation Unit. There are 3 fires one on ground level, which is intermittent and 2 fires are elevated in the unit. CITGO composite sampler for outfall 001 is still functioning and being sampled by the refinery personnel. TCEQ is grabbing spits and analyzing effluent for BOD, COD, Oil and Grease, Hex Chromium, Chromium, sulfides, phenols, ammonia and fluorides. CITGO indicates that the treatment system is not set up for treatment of fluorides.
07/21/2009	0800	CSB, EPA, CITGO meet to discuss CSB investigation. Status was given as fires continue on the Alkylation Unit; CITGO has isolated feeds to the unit so the releases were thought to be only of materials contained in the unit. CITGO reported that their air monitoring showed no HF was leaving the unit as a vapor, so the vapor suppression was adsorbing the HF. Salt water was being used for vapor suppression.
07/21/2009	0900	CITGO reports the HF and Butane Tanks are isolated so fire and vapors are only coming from the process vessels leaking toward atmospheric pressure.
07/21/2009	1000	EPA collects a sample from Outfall 001.
07/21/2009	1552	EPA does air monitoring at 5 locations outside the Refinery.
07/21/2009	1935	CITGO reported that the fire may be out and vapor suppression will continue until is confirmed fire and leaks have creased. Some secondary containments are leaking, near tanks 1028 and 116 & 117. High water levels in secondary containments have damaged equipment and rain could cause more damage and float tanks. Idle tanks have floated causing damage to piping and equipment. CITGO reports they are running out of storage space for firefighting / vapor suppression water. CITGO began neutralizing water around tanks 116 & 117. CITGO would like to discharge the salt water used for firefighting and vapor suppression.
07/22/2009	0650	Fires were reported to be out at 2100 on 07/21/2009.
07/22/2009	0719	CITGO confirms fire out but there are still 2 LPG and one suspected HF leak so vapor suppression water is still being used on the unit at the rate of 4,000 gallons per minute (gpm). CITGO estimate they have 16,000,000 gallons of stored firefighting / vapor suppression water. The pH of the water in the secondary containment of Tanks 116 and 117 is 2.8 to 3.8 pH units.
07/22/2008	0830	EPA representatives monitor at locations off site. Nothing above background detected.

Date	Time	Log
07/22/2008	1015	Meet with CITGO and TCEQ, CITGO indicates they are running out of storage space for vapor suppression water and wants permission to discharge the salt water used for vapor suppression.
07/22/2008	1445	ENTRIX arrives on site to perform a baseline biological assessment of the Industrial Channel prior to discharge of accumulated vapor suppression water.
07/22/2008	1615	TCEQ requests more information on the amount of HF that was released. CITGO indicates that there are currently 4 leaks, 2 LPG and 2 HF. HF is being captured by the vapor suppression water that is used on the unit at approximately 4,000 gpm. Duck family may have wandered into secondary containment of Tanks 116 and 117. Parks and Wildlife has been notified. The water in the secondary containment around tanks 116 and 117 now around 4.7 to 6.7 pH. CITGO says that based on water concentrations of HF, 70 barrels of HF were released. CITGO indicates that no HF left the site as it was captured by the vapor suppression. CITGO indicated that the unit may have contained as much as 370 barrels. The perimeter monitors of the unit have not identified any air bourn HF left the unit.
07/22/2009	1915	Receive call that CITGO began releasing untreated salt water used in vapor suppression. CITGO is collecting samples of the discharge and analyzing for discharge storm water parameters and fluoride.
07/23/2009	0715	CITGO briefing; CITGO discharging an estimate 3,500 gpm of salt water used in vapor suppression through Outfall 004. TCEQ collecting samples of the discharge 2 time a day in addition to CITGO samples.
07/23/2009	0843	Began circuit of offsite monitoring points and nothing was detected above background level.
07/23/2009	1524	CITGO Update; 2,000 gpm is the current discharge rate from Outfall 004. CITGO perimeter monitoring units still have no detections. SealTech will be entering unit to seal remaining leaks.
07/24/2009	0845	The secondary containment of tanks 116 and 117 has the first fresh water used for vapor suppression. CITGO is looking at deep well injection of this water due to high fluoride content. SealTech has sealed 2 of the 4 known leaks.
07/24/2009	1008	EPA does perimeter monitoring.
07/24/2009	1545	CITGO briefing; SealTech has sealed all ground level leaks. There is only one butane/HF leak left this from a pipe on the top of the settler that can only be accessed by crane and man basket as the walkways are damaged by the fire. Vapor suppression continues until leaks are stopped and the unit's internal HF monitoring is repaired.
07/24/2009	1742	EPA START-3 conducts off site monitoring.
07/24/2009	1915	CITGO reports; vapor suppression monitoring continues at 3,000 gpm, discharge through Outfall 004 continues at 3,000 gpm.
07/25/2009	0800	CITGO reports unit pressure now down to 4psig. They have discharged an estimated 12,000,600 gallons through Outfall 004. Leak on settler has been stopped, but additional leaks were found.
07/25/2009	0820	EPA START-3 conducts offsite perimeter monitoring.

Date	Time	Log
07/25/2009	1210	Depart site.
07/27/2009	1735	START-3 mobilized to CITGO.
07/28/2009	1400	Returned to CITGO
0728/2009	1500	CITGO briefing; discharge from Outfall 004 has fluoride concentration of 10 and less ppm, the fluoride concentration of the discharge from Outfall 001 is was 57 ppm. TCEQ continues to sample the outfalls 2 times a day. Alkylation Unit now has internal pressure of 1 to 1.5 psig.
07/28/2009	1601	EPA START-3 monitoring perimeter.
07/29/2009	0800	EPA START-3 does perimeter monitoring.
07/29/2009	1000	CITGO briefing; Vapor suppression was discontinued at 1730 hours on 07/28/2009. The internal monitors are on line and CITGO sounded the all clear at 2025 hours on 07/28/2009. Discharge rate through Outfall 004 at 3,500 gpm. CITGO flushing salt water from firefighting /vapor suppression system. CITGO preparing a soil sampling plan for secondary containments used to store the vapor suppression water.
07/29/2009	1500	CITGO briefing; Water in secondary containment of Tanks 116 and 117 has 118 to 120 ppm fluoride and will be disposed or treated. De-inventory of the Alkylation Unit to begin tomorrow. CITGO considers the emergency over and is discontinuing the formal briefings
07/30/2009	1050	EPA START-3 begins perimeter monitoring at 5 locations.
07/30/2009	1530	EPA START-3 begins perimeter monitoring at 18 locations.
07/31/2009	1000	EPA START-3 released from site after one more monitoring circuit.
07/31/2009	1015	EPA START-3 begins perimeter monitoring at 19 locations.
07/31/2009	1200	EPA START-3 demobilized from site.

ATTACHMENT H

CITGO TIMELINE

301
302
221
222
1028
1003

Alky Fire Incident
July 19, 2009

8:34—Fire Alarm EP1 Alky unit

8:45—EOC set up and started

9:05—Hotline notified

9:15—Hurt/Injured employee sent to hospital for treatment

9:20—Dave Pruner sent to hospital to be with injured employee

9:30—Cave went out to talk with Citgo responders

9:50—Employee taken to San Antonio to treatment

9:55—EP units cutting back because of Joy Compressor

9:55—Caller times posted event

9:55—Industrial neighbors notified of incident

10:00—Major city officials notified

10:00—TCEQ – called, left message by Eric Bigelow

10:05—Kevin Ferrall left message for Bob Kent

10:15—Zero reading for HF at 4 way stop

10:20—fire still present (contained)

10:24—Term blender bldg readings: zero HF, zero LEL

10:30—Fire on north side of Alky unit

10:30—Shelter in place for Flint Hills released

10:30—TCEQ requested a call to Rodger Bennet

10:31—2 fires, one on the ground and one on structure, they are contained

10:31—Fire battalion chief M. Schmidt arrives to be briefed

10:35—First aid (Slusher) examined by nurse

10:38—Eric Bigelow called Rodger Bennet with TCEQ

10:40—Call to TCEQ made by Eric Bigelow

10:44—Fire at north side area of Alky unit is out

10:51—Called Kelly Ruble (537-7911) TCEQ

10:50—Notified NRC

10:51—Water cannons activated, cause unknown

10:52—Small amount of HF detected, water cannons reportedly activated manually

10:53—Operations working to adjust water cannons for RECON

11:00—Meals ordered for EP1 and NCCR

11:06—Eric Bigelow called NRC spoke with petty officer Procko: report # 912017

11:10 –Security cameras indicate fire on small bore piping at the reactor

11:25—CITGO employees going in to unit to make an assessment

11:27—preparations being made to acquire additional PPE

11:29—Key isolation block valve closed off in Alky unit

11:30—Corporate legal approves press release

11:35—recon team has exited the unit and doing decontamination

11:45—Press conference takes place, channel 3 and channel 6 on site

11:45—Eric speaks to GLO, Steve Bushang and provided update

11:49—Representatives from TCEQ have arrived on site

11:54—Rodger Bennet (TCEQ) on site and introduced to EOC team

12:03—Acid CV leaking. Personnel preparing to enter unit and isolate

12:09—ERT personnel entering to shut down the fire truck

12:11—TCEQ representative Yvonne Jimenez arrives and introduced to EOC

12:14—No fire visible on ground and personnel staging to make another assessment

12:14—Meals delivered to EP1 Alky control room

12:17—5ppm HF reading corner of Oak Park and Buddy Lawrence.

12:19—0 reading HF at IH building

12:24—Personnel going into unit to make blocks

12:25—Personnel (Slusher) reported OK

12:30—Michael Ricke called Katie O'Connell for update on Slusher medical condition and confirmation of injuries

12:32—EP2 control room area reports zero reading for HF and LEL

12:35—Citgo tower truck had been shut down and isolated

12:40—John Silvas talked to John Warner (union representative)

12:42—Barnes and Oak Park area reported zero HF and LEL

12:50—Alkylate flush pump appears to have seal leak

12:51—117 control valve has been isolated

12:56—Zero ppm HF reported at Buddy Lawrence

13:05—Team examining P&ID's and formulating an isolation plan

13:24—Flames reported between drums 1 & 2

13:36—LPG area has been checked and is OK, zero LEL and HF

13:44—Flint Hills opening valve to supplement firewater supply

13:56—Eric talks to Steve Bushang for update, GLO

14:28—John Silvas making preparations to travel to San Antonio

14:30—Arrangements being made to shuttle Terminal employees at shift change

14:35—Jerry Perez has been notified to procure trailers

14:50—Investigation team being formed

14:57—Zero HF and LEL in the area of TK2001

15:00—Michael Ricke says Chris Adams entered a STEERS report

15:05—2 out of 3 deluge systems in the unit are now blocked in

15:10—Barnes and Oak Park intersection reports zero HF and LEL

15:10—Water cannons 11 & 12 activate, HF detected

15:18—2 high output pumps on order to transfer low pH water

15:30—Dave Cave briefs team on plan to transfer river water to supplement current water supply

15:31—Fire reported at Hydrar

15:33—Kevin Ferrall making assignments for relief

15:44—David Cave explains to team about the need for decon equipment

15:48—Curtis Crisp requests the need for personnel to make a lineup to start making 6-oil

16:00—Eric called NRC for update, they stated they did not need one

16:30—East of Cooling Tower 11, zero HF and LEL

17:10—One of the ground fires is reported to be out

17:12—TGLO notified—Steve Bushang

17:26—Fire at Hydrar reported

17:38—Fire water Channel Transfer pump is in place. Team coordinating effort to terminate the loading of a ship to place a barge in its place.

17:49—Michael Ricke contacting Jerry Perez to acquire necessary decon equipment

18:06—Fire at Hydrar is out

18:07—Transfer firewater water pump has been started and pumping water into fire water system

18:12—Daniel Escobar with TCEQ on site to relieve the day crew

18:34—Entry team entering the unit

18:36—Losing suction on firewater pump tanks, extracting entry team

18:44—Second fire at Hydrar is out and has been isolated

19:03—Operations shutting down TK67 pump

19:17—Radiator on FWP 35 is no good

19:57—Status of fire-barge, waiting on hoses

20:00—Coast guard called—Petty Officer Compton

20:05—Visible HF leak spotted in unit, personnel capturing the leak with water

20:10—One of the hoses on the fire-barge is charged, working on the second

20:12—Ops evaluating water cannons and fire monitors for effectiveness

20:23—Authorization given to shut down water cannon 13

20:25—Michael Ricke contacting other procurement personnel

20:27—Evaluating the possibility of shutting down water cannon 15

20:40 – Fire Barge pumping salt water into Fire Water Header – 50psi on header sys

20:45 – Tank 67 only pump running, Shutdown Tank 66 pumps because of low city water pressure

20:55 – Acid circulation pump is currently on fire – isolated and burning out. One visible Acid leak contained. "Captured" via water cone

21:05 – Dennis Calhoun arrived around 20:45 to backup Kevin for night shift.

21:10 – Alky, Hydrar and #1FCCU units down

21:15 – 4&3m skid pumps at docks operational, P35 at Tk down

21:20 – Fuel trucks for portable equipment in transit

21:21 – Secure additional Vacuum Trucks (Miller) Barriger is checking on it

21:25 – Cave asked Operations to look at North side water cannons for coverage

21:32 – Operations looking at 20" isolation valve block in Alky (18" suction pump)

21:38 – TOMORROW: 2) Spray Trucks, 2) VAT Tanks, 2) Mobile Offices

21:45 – **Daniel Escobar/TCEQ** - General overview: Isolated leaks in Hydrar unit (adjacent to Alky) – Alky fire contained.
Couple of small leaks: Water on Isostripper 4" drain line. 2 Leaks contained/captured. Fire water being supplemented from ship channel. Waster water draining to dike. 1022 & 1024 dikes will be used next. Requested Process Diagram of leak areas, Alky unit and location of fire (plot plan).

21:50 – Requested to be included and copy of timeline.

22:05 – Miller Vacuum trucks on site.

22:26 – HF & LEL readings zero per Operations

22:50 – PFDs and Plot plans of Alky and Hydrar delivered to TCEQ

23:00 – Blocked in small ¾ line

23:20 – HF & LEL readings zero … Flint Hills guard shack on Nueces Bay (Up wind neighborhood areas)

23:25 – HF & LEL readings zero … Nueces Bay at East Gate

23:40 – Ken Trial report: Monitor around esv on boot – contacting alky qualified instrument techs – LPG, LevelB outfits to go into area

23:45 – CITGO Fire Truck readings zero LEL & HF (West side of Alky)

23:46 – Wind 15mph out of the south east

00:15 – Elementis location: HF & LEL reading zero

00:32 – Move portable fire water tanks at docks to lift station in order to divert water from tanks 116/117 into Dike wall at 1028.

01:24 – Capt. Cantu – get with Mike Morgan at Terminal Blender to get pumps moved. Skid Pumps. Zachry employees onsite and available to help hook up.

01:44 – Alky laser beams showing all clear which operate deluge cannons

01:50 – Elementis: LEL & HF at zero

01:57 – 6 ph in runoff water on west side of Alky Unit

01:58 – Sw to pumps at Tk67 (Gen PM check)

02:10 – Winds 10mph from South

02:15 – Firewater pump is being connected at the API

02:20 – 5ppm VOC, HF(zero) under acid settler (location of fire)

02:45 – Zero LEL under acid settler

02:47 – Winds at 10mph from the South

03:15 – Winds at 12mph from the South East

03:20 – Moved fire pump from the API to Storm water lift station

03:51 - Swapping P37 to P38 at Tank 67 (Tank 66 pumps shutdown)

03:58 – Winds 12mph from the SE

04:04 – Oak Park: Zero HF & LEL

04:14 – Operations able to close 18" FSV

04:15 - P37 online and P38 down on Tank 67

04:17 - Elementis: LEL and HF reading zero

04:30 – Priming portable firewater tank at lift station and tank 117 is at 28 ½ ft. 116/117 firewall will be filled with another 1ft of water.

04:36 – Request to capture lab samples at old API location

04:38 – Wind speed at 6mph coming from South, South-East

04:42 - Elementis: LEL and HF reading zero

05:10 – Elementis: LEL & HF readings zero

05:15 – Reading at 4way and North of Alky LEL & HF zero

05:15 – winds 6mph at South South-east

05:20 – Tk 116 has 6" to go, Tk 117 have 15"~ before top of Valve – 4' ft of Dike wall left before water spills over.

05:25 – Draining Tk116 to firewall until level in firewall comes up to 6" then we will sw from Tk117 to Tk 116 then drain Tk117 1ft into fire wall.

06:30-EOC team has made relief and formulating plans for the day

06:52-Zero readings for HF and LEL in the area of the Old Cat

07:30-Elementis parking area zero reading for HF and LEL

08:08-Pumps are being prepared to be set in the WW area

08:12-Discussion about water sampling and plan forward for WW tanks

08:43-Orders given to begin sampling on the lift station in case there is a need to divert

9:20-**General Information**

PSM Investigation Team:
Neil Plug
Alan Martini
Adriana Salinas
Landon White
Justin Smith
Don Graffy
Rick Hargrove
Dawn Weinand

Alky Assessment Team
Jay Rynes
Brandon Palmer
Bob Fransmier
Don Dana
Mike Overguard
D.L. Bragg
Gordon Day
Tech Rep-Trina Martinez
Proj.-Adrian Davidson

Evidence Preservation Team
David Pruner
Paulette Fonteno
Greg King
Documentation Team Leader-IKON
Paulette Fonteno

09:30- Called Jack Carroll to work with the Port to acquire fuel for the fire boat

09:30-Air Cannons for bird control are on site at Term WW

09:30-Additional Safety people have arrived and are on site
Steve Fontenot-LCMC
Gary Bussell-LCMC
Expected – Cliff Lester
Paulette Fonteno
Neil Plug

10:50-One pump is now running at WW

11:04-TCEQ is sending another representative to do sampling

11:05-An aircraft has been observed flying in close proximity to the facility

11:08-Tk 1023 is scheduled to be sampled

11:30-Update on WW pumps, both pumps are pumping now

11:40-IH detects some readings of HF in the range of 0.2 - 0.6 ppm between the RO and EP2 CR

11:45-Entry team staging to enter unit to make an evaluation. Personnel are being instructed to shelter in place

11:48-1 ppm HF detected near RO and EP2

11:55-CSB has issued a press release

12:34-North Gate HF readings are zero

13:24-0.4 ppm HF detected at EP2

13:25- Personnel are repositioning water streams toward the fire

13:35-IC and operations reviewing plan for another isolation activity

14:00-Zero ppm HF detected at North Gate

14:11-1.0 ppm HF reading at EP2, replacing monitor to confirm reading

14:23-Actual reading at EP2 are zero ppm HF

14:28-Zero HF at North Gate

14:35-Elementis reading is zero for HF

14:58-Elementis readings are zero HF and zero LEL

15:00-Second press release sent out

15:45-One fire has been put out, the one on the sample point/level glass

Alky Incident Update
July 23, 2009

SAFETY:

- No safety incidents
- Continue to stress heat related safety with employees – hydration and frequent breaks
- Monitor readings continue to be 0 HF along battery limits
- Continue to monitor refinery fenceline with personnel; nothing found

ENVIRONMENTAL:

- Neutralization of tank dike 116/117 with soda ash successful – pH is now between 6-8
- Required notifications made prior to release of firewater
- Entrix Wildlife and Habitat assessment team arrived and completed sampling for initial assessment
- Releasing of stored firewater from diked areas 200 series tanks and tanks 302/301
- Obtaining samples from Outfall 003 while releasing firewater every 4 hours
- Tea-cup size duckling found in weeds of tank 116/117 deceased; notified US Fish & Wildlife and TX Parks and Wildlife; appears to have been drowning; chicken wire being installed across apparent entry route of waterfowl

OPERATIONS:

- Have 4 known HF leaks on the unit – water cannons continue to suppress vapors
- Contractor coming in this morning to address HF leaks

ATTACHMENT I

POLLUTION REPORTS (POLREPS)

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Tuesday, July 21, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Initiation of Action
Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	1	**Site #:**	
Reporting Period:	19-21 July 2009	**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description
On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities
On 20 July 2009 at 1800 hours EPA OSC Mark Hayes and Superfund Technical Assessment and Response Team (START-3) arrived on-site. START-3 was tasked to collect a water sample at the wastewater treatment outfall 001 and begin perimeter air monitoring for VOCs and Hydrogen Fluoride.

Planned Removal Actions
None planned at this time.

Next Steps
Continue perimeter monitoring and coordinate with other state and federal agencies. Potentially collect additional water samples to monitor plant discharge.

Key Issues

There has been a non-detect of VOCs and Hydrogen Flouride from air monitoring around the perimeter of the facility. Monitoring is ongoing of fire fighting efforts and the potential for Hydrogen Flouride release.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Wednesday, July 22, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	2	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description
On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities
On 21 and 22 July 2009 EPA perimeter air monitoring for VOCs and HF continues to reflect non-detect of HF. At 2100 hours on 22 July 2009 CITGO confirmed that the fires were out. At 1015 hours on 22 July 2009 storage of fire fighting water is becoming critical so CITGO is supplying data for a permission to discharge water that exceeds their permit limits for fluoride. At 1615 hours on 22 July 2009, CITGO indicated there were four continuing leaks on the Alkylation Unit, 2 of LPG and 2 of HF. The leaks were identified by observation of the interaction on the leaks with the water curtain as the internal unit monitoring system was damaged by the fire. The Alkylation Unit perimeter monitoring continues to show that no airborne HF has left the unit. CITGO has estimated that 70 barrels of HF is contained in the fire fighting water stored on the facility or discharged through the plant treatment system. On 22 July 2009 at 1930 Citgo initiated an unauthorized discharge of run-off water containing elevated levels of fluoride, exceeding NPDES permit limits, into a ship channel adjacent to the facility. The run-off water was diverted into secondary containment throughout the facility during fire suppression operations.

Planned Removal Actions

Incident is being monitored. None planned by EPA at this time.

Next Steps

Continue perimeter monitoring until hydrogen fluoride leaks are stopped and coordinate with other state and federal agencies. Potentially collect additional water samples to monitor plant discharge.

Key Issues

There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility. Monitoring is ongoing of fire fighting efforts and the potential for HF release. Unauthorized discharge of water containing elevated levels of flouride into the nearby ship channel.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Thursday, July 23, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	3	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description
On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities
On 23 July 2009 EPA perimeter air monitoring for VOCs and HF continues to reflect non-detect of HF. At 0140 hours on 23 July 2009 CITGO initiated a discharge of seawater used in fire fighting and vapor suppression operations through outfall 004, a storm water outfall. At 0200 hours on 23 July 2009 CITGO began sampling the outfall 004 at 4 hour intervals for the parameters for storm water plus pH and fluoride. CITGO estimates they are discharging at approximately 2,000 gallons per minute (gpm). TCEQ also grabbed split samples to analyze for waste water parameters in CITGO's discharge permit. TCEQ will grab additional water samples once the next secondary containment is discharged. At the 1530 briefing CITGO identified that Sealtech, the company contracted to seal the HF leaks on the Alkylation Unit, will be entering the unit to assess what is required to secure the HF leaks. CITGO cannot estimate when the leaks will be secured until they have an estimate from Sealtech and will continue to use 4,000 gpm of seawater for vapor suppression. CITGO monitoring at the perimeter of the unit has not identified any airborne releases from the unit.

Planned Removal Actions

Incident response is being monitored. None planned by EPA at this time.

Next Steps

Continue perimeter monitoring until hydrogen fluoride leaks have been secured and coordinate with other state and federal agencies. Potentially collect additional water samples to monitor plant discharge.

Key Issues

There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility. Unauthorized discharge of water containing elevated levels of flouride into the nearby ship channel is on-going.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Saturday, July 25, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	4	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description
On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities
On 24 July 2009 EPA perimeter air monitoring for VOCs and HF continues to reflect non-detect of HF. On 23 July 2009 CITGO continues to discharge the seawater used in fire fighting and vapor suppression through Outfall 004, a storm water outfall at approximately 3,000 gpm. CITGO samples the Outfall 004 at 4 hour intervals for the parameters for storm water plus pH and fluoride. TCEQ is grabbing split samples and analyzing for the waste water parameters in CITGO's discharge permit. TCEQ will grab samples twice a day. At the 1900 briefing CITGO identified that Sealtech, the company contracted to seal the HF leaks on the Alkylation Unit, had sealed 3 of the 4 known leaks. CITGO now uses 3,000 gpm of seawater for vapor suppression and may continue until the unit's internal monitoring system in the area of where the fire occured is restored. CITGO monitoring at the perimeter of the Alkylation Unit has not identified any airborne releases. CITGO is depressurizing the unit through an acid gas removal system and flaring the remaining gas through the flare.

Planned Removal Actions

Incident response is being monitored. None planned by EPA at this time.

Next Steps

Continue perimeter monitoring until hydrogen fluoride leaks have been secured and coordinate with other state and federal agencies.

Key Issues

There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility. Unauthorized discharge of water containing elevated levels of flouride into the nearby ship channel is on-going.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Monday, July 27, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Continueing Monitoring
Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	5	**Site #:**	
Reporting Period:	25 and 26 July 2009	**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities

On 25 July 2009 EPA perimeter air monitoring for VOCs and HF continues to reflect non-detect of HF. At the 0800 briefing CITGO identified the Sealtech, the company contracted to seal the HF leaks on the Alkylation Unit, had sealed the fourth of the 4 known leaks, and discovered 3 more leaks one from the packing of a 12-inch valve. CITGO continues to discharge the seawater used in fire fighting and vapor suppression through Outfall 004, a storm water outfall at approximately 3,000 gpm. CITGO samples the Outfall 004 at 4 hour intervals for the parameters for storm water plus pH and fluoride. The TCEQ is grabbing split samples twice a day and analyzing for the waste water parameters in CITGO's discharge permit. CITGO estimated that 12,000,600 gallons of fire fighting water had been discharged. CITGO estimates they use 3,000 gpm of seawater for vapor suppression and may continue to use vapor suppression water at that rate until the unit's internal monitoring system is in the area of the fire is restored and all leaks are sealed. CITGO monitoring at the perimeter of the unit has not identified any airborne release from the unit. CITGO is depressurizing the unit through an acid gas removal system and flaring the remaining gas through the flare and has indicated that the unit pressure in the leaking circuit is down to 4 psig. EPA

demobilized from the site as the TCEQ was maintaining a 24-hour presence at the facility until all vapor suppression is discontinued. After treating the fresh water used in fire fighting and vapor suppression with soda ash to adjust the pH from around 2 to around 6.5 CITGO is adding this water with elevated fluoride concentrations into the plant waste water treatment system. On 26 July 2009 the three additional leaks identified yesterday had been stopped and 2 more leaks were identified bringing the total of newly identified leaks to 5. The 2 remaining of the 5 leaks was expected to be stopped on 27 July 2009.

Planned Removal Actions
Incident response is being monitored. None planned by EPA at this time.

Next Steps
Coordinate with other state and federal agencies and monitor the situation by telephone

Key Issues
There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility. The pressure in the unit is low and CITGO indicates that only trace HF is being released, and the vapor suppression efforts continue so there have been no detections outside the unit. Unauthorized discharge of untreated seawater used in fire fighting and vapor suppression that contained elevated levels of fluoride into the nearby ship channel continues. Treated fresh water used in fire fighting and vapor suppression had elevated fluoride concentrations in the plant discharge.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Wednesday, July 29, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	6	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities

On 27 July 2009 EPA perimeter air monitoring for VOCs and HF continues to reflect non-detect. CITGO continues to discharge the saltwater used in fire fighting and vapor suppression through storm water outfall 004 at approximately 3,500 gpm. CITGO samples the Outfall 004 at 4 hour intervals for the parameters of storm water plus pH and fluoride. CITGO reports the results are within permit limits, with fluoride running equal to and less than 10 ppm. TCEQ is grabbing split samples twice a day and analyzing for the waste water parameters in CITGO's discharge permit. CITGO estimates they use 3,000 gpm of water for vapor suppression and may continue to at that rate until the unit's internal monitoring system in the area of where the fire occurred is restored and all leaks are sealed. At 1500 hours attempts to repair or replace these monitors were initiated. CITGO monitoring at the perimeter of the alkylation unit has not identified any airborne releases of HF. CITGO is depressurizing the unit through an acid gas removal system and flaring the remaining gas. CITGO has indicated that the unit pressure in the leaking circuit is down 1 to 1.5 psig. After treating the fresh water stored in secondary containments 116 and 117 with soda ash to adjust the pH from around 2 to around 6.5, CITGO is considering options for disposal. The fresh water used in fire fighting and vapor suppression that was stored into tanks 116 and 117 is

being routed through the plant wastewater treatment system and discharged at outfall 001. CITGO reports the discharge from outfall 001 is within permit limits except for fluoride concentrations, which is running at 57 ppm. Citgo suspects additional unknown leaks near where the fire occurred and will continue to assess.

Planned Removal Actions
Incident response is being monitored. No removal actions planned at this time.

Next Steps
Coordinate with state and federal agencies and continue to monitor the situation.

Key Issues
There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility. The pressure in the unit is low and CITGO indicates that only hydrocarbons are being released, and the vapor suppression efforts continue so there have been no detections outside the unit. Unauthorized discharge of untreated seawater used in fire fighting and vapor suppression that contained elevated levels of fluoride into the nearby ship channel continues. Treated fresh water used in fire fighting and vapor suppression had elevated fluoride concentrations in the plant discharge.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Monday, August 03, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	7	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities

On 28 July 2009 EPA perimeter air monitoring for VOCs and HF continues to reflect a non-detect. CITGO continues to discharge the seawater used in fire fighting and vapor suppression through Outfall 004, a storm water outfall, at approximately 3,500 gpm. CITGO sampled Outfall 004 at 4 hour intervals for the parameters for storm water plus pH and fluoride. CITGO reports the results are within the NPDES permit limit, with fluoride running equal to and less than 10 ppm. TCEQ is grabbing split samples twice a day and analyzing for the waste water parameters in CITGO's discharge permit. At 1730 hours CITGO discontinued the usage of saltwater for vapor suppression. Immediately following, CITGO entered the unit to confirm that the leaks were secured, repaired and replaced elements in the unit's internal monitoring system. At 2025 hours the all clear was sounded by CITGO and decontamination of the unit's exterior began.

On 29 July 2009 CITGO is depressurizing the unit and is preparing to de-inventory the unit. De-inventory is projected to begin tomorrow and last 2 to 3 days. Once the unit is de-inventoried the internal decontamination will begin with an acid wash, followed by a caustic wash, and completed by a neutralization wash. The internal decontamination is estimated to last 1 to 3 days. There is an

estimated 150,000 barrels of fresh water, used during vapor suppression efforts, stored in the secondary containment of Equalization Tanks 116 and 117. The stored fresh water was previously treated with soda ash to adjust the pH from around 2 to 7. CITGO is considering options for disposal of the treated fresh water through additional methods. The fresh water, used during vapor suppression efforts, stored in Equalization Tanks 116 and 117 is being treated with the plant waste and being discharged with elevated fluoride concentrations from Outfall 001.

Planned Removal Actions
Incident response is being monitored. No removal actions planned at this time.

Next Steps
Continue to Coordinate with state and federal agencies and continue to monitor the situation.

Key Issues
There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility. The pressure in the unit is low and CITGO indicates that all leaks, specifically HF, have stopped. CITGO is continuing efforts to allow access to the unit. Unauthorized discharge of untreated saltwater used in fire fighting and vapor suppression nearby industrial channel continues.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Monday, August 03, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	8	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:		**NPL Status:**	
Completion Date:		**Incident Category:**	
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description
On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities
On 30 July 2009 EPA perimeter air monitoring for VOCs and HF continues to reflect non-detect. CITGO is depressurizing the unit and is preparing to make the connections to de-inventory the unit. De-inventory is delayed pending CSB and OSHA approval of the alterations that need to made to remove the inventory from the unit.

Planned Removal Actions
Incident response is being monitored. No removal actions planned at this time.

Next Steps
Continue to Coordinate with state and federal agencies and continue to monitor the situation.

Key Issues
There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility. The pressure in the unit is low and CITGO indicates that all leaks, specifically HF, have

stopped. CITGO is continuing efforts to allow access to the unit. Unauthorized discharge of untreated saltwater used in fire fighting and vapor suppression nearby industrial channel continues.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.org/CitgoRefineryFireCorpus

United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Tuesday, September 15, 2009
From: Mark Hayes

To:	R6 PolRep TX, Response and Prevention Branch	Debbie Dietrich, Office of Emergency Management
	Sam Coleman, Superfund Division	Chris Petersen, Superfund Division

Subject: Final
Citgo Refinery Fire
1801 Nueces Bay Blvd, Corpus Christi, TX
Latitude: 27.8093090
Longitude: -97.4266880

POLREP No.:	9	**Site #:**	A6R9
Reporting Period:		**D.O. #:**	
Start Date:	7/19/2009	**Response Authority:**	CERCLA
Mob Date:	7/20/2009	**Response Type:**	Emergency
Demob Date:	7/31/2009	**NPL Status:**	Non NPL
Completion Date:	9/15/2009	**Incident Category:**	Removal Assessment
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description
On 19 July 2009, at approximately 0835 hours, an equipment failure resulted causing a fire of released Butane and a potential release of Hydrogen Fluoride from a #2 Alkylation Unit at the Citgo Corpus Christi east plant. Perimeter monitoring conducted by TCEQ and Citgo did not detect any VOCs or Hydrogen Fluoride. The fire fighting and water spray suppression appear to have prevented any releases from being detectable at the site perimeter. One injury resulted from the initial fire.

Current Activities
EPA continues to correspond with federal and state agencies as needed.

Planned Removal Actions
There are no removal actions planned.

Next Steps
None

Key Issues
There has been a non-detect of VOCs and HF from air monitoring around the perimeter of the facility.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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ATTACHMENT J

START-3 LOGBOOK

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...for outdoor writing people."

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JOURNAL
No. 391

CITGO Refinery Fire
East Plant
Corpus Christi, Nueces County
Texas
TO-0001-09-07-07
20406.012.001.0451.01

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

Name 20406.012.001.04651.01
TO-0001-09-07-07
Address CITGO REFINERY,
1801 Nueces Bay Blvd, Nueces County
Phone Corpus Christi, TX

Project

Clear Vinyl Protective Slipcovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

CONTENTS

PAGE	REFERENCE	DATE
TAW	Thomas A. Walzer	
PB	Patrick Bond	
	Refinery	
	Latitude: 27.8093090	
	Logitude: -097.4266880	
	(Estimated Location of Fire)	

2 TO-0001-09-07-07 20406.012.0001.0451.01

07/20/2009 CITGO REFINERY FIRE

1400 RECIEVE NOTICE OF CITGO REFINERY FIRE FROM OSC MARK HAYES (214)232-7134 Butane - with possible HF involved NRC Report 9/2017; WATER curtain containing emissions of Refinery, one injury OSC HAYES getting Flight State sampling Air and Water

2000 ARRIVE at REFINERY START-3 PERSONNEL THOMAS WALZER AND PATRICK BOND OSC HAYES DISMISSEES AND SEND TO Hotel

Thomas A. Walzer 07/20/2009

TO-0001-09-07-07 20406.012.0001.0451.01 3

07/21/2009 - Corpus Christi CITGO

0645 ARRIVE ON SITE

0700 MEETING; ERIC Bylow, Citgo; Paule Kiet; MARK Hayes, Roger BENNETT.

301 + 302 DIKED AREA taking water from ~~1021, 221~~ lift station, then to 1022, 1023 1024. FIRE in 83 AREA; Containment also 221, 222.

Soda Ash to neutralize in FRAC TANKS

No emissions detected in or out by TCEQ;

0.001 H_2S; on Elementis FACility

Wind from SE for incident.

pH 7.0 from Unit on fire, currently 11.7

WATER 2.9 pH in Dike wall ~~102~~ + 116

Secondary or TANKS

OSHA on CSB here today CSB (0800), OSHA (0900)

More pumps for fire water;

3 fires; main ON + Off; 2 elevated off more than on.

Composite SAMPLER functioning; May or may not have been off.

Citco

Mike - 361-290-0319 - ~~Rick~~ & Ricke

361-446-1296 - ERIC Bylow Cellphone

Thomas A. Walzer 07/21/2009

07/21/2009 CITGO REFINERY FIRE Corpus Christi
0730 BOD, COD, O+G, TSS, Hex Cr, Cr, Pb, Sulfides, phenols, Ammonia, Flourides TCEQ TAW
TREATMENT SYSTEM NOT SET up for Flourides 117+116 low pH; TAW
0800 CSB Team arrives for briefing, active fire in alkalation unit near No. 1 settler. Isolated — PB
everything possible, No HF readings outside — PB
suppression systems. Chemical safety board has — PB
Chosen to investigate the incident. CSB is looking — PB
to work with OSHA on data & evidence preservation. — PB
CSB will conduct interviews of staff that was — PB
on site during incident and will enter the unit as — PB
soon as it has been chemically cleaned for safety — PB
reasons to obtain more data for investigation. — PB
0838 REQUEST "TWIG" IDs for Sensitive TAW
AREAS, REQUEST have at ALL TIMES. TAW
Julie White, Robert J Hall, Mary Nikitin TAW
CSB; Rixio E. Medina, VP Health, Safety, TAW
Security, Environmental Protection and
Shared Services CITGO TAW
SARA GARCIA, Port Author TAW
Tony Chevalier, Port Harbor Master TAW
361-882-5633 Port Main Number Possibly
Thomas Wofford / 07/21/2009

07/21/2009 CITGO Refinery Fire, Corpus Christi
0900 - HF TANK & Butane TANKS Isolated. TAW
1000 - Collect water sample from outfall — PB
NO. 001 to test for Flourides. — PB
1120 - Plan with OSC Hayes to Conduct Air Monitoring
In three locations around the facility, to — PB
the North, the ~~West~~ East (PB), and North ~~West~~ East (PB) across
the Ship Channel. — PB
1150 - Briefing with Mike Ricke, begin filling tank — PB
2003, have begun process to Stage fire water
in diked areas around tanks 1029, 1030, 1032. — PB
Citgo is requesting access from tceq to release
Neutral pH water back into the ship channel. — PB
Still have two fires burning, one has been
extinguished of the three fires. — PB
Flouride discharge limits Exceeded — TAW
55.7 mg/L / 10.0 mg/L limit in composite
sample 07 — TAW
1538 Drop sample LABORATORY — TAW
1552 Air Monitor PARKING LOT Elements TAW
N27.81330; W097.43089 I 21 — TAW
CO-0 ppm; VOC 0.0 ppm, H_2S-0 ppm TAW
LEL 4% O_2 20.9 — TAW
ELEMENTIS Chromium - OF001 — TAW
1608 Air Monitor at intersection of Broadway & Palm
N27.80791; W097.41610 ± 12 ft, OF002
Thomas A. Wofford 07/21/2009

07/21/2009 CITGO REFINERY FIRE TAW

1608 HR CO-0; VOC-0, H_2S-0, LEL TAW

Oxygen - 20.9 TAW

1629 West of ADM Silos OF003 TAW

N27.82009, W097.42486 ±13 TAW

CO-0ppm; VOC-0.0ppm; H_2S-0ppm, O_2 20.9 TAW

HF - Non Color Change <1.5ppm TAW

1634 East of ADM Silos OF004 TAW

N27.81842; W097.42101 ±11 TAW

CO-0ppm; VOC 0.0ppm, H_2S-0, O_2-20.9 TAW

HF - No color change <1.5ppm TAW

1640 West 0.3 Mile of ADM Silo Location OF005 TAW

N27.82243; W097.42808 ±11 TAW

CO 0ppm; VOC 0.0ppm; H_2S 0; O_2 - 20.9pp TAW

HF - No color change <1.5ppm TAW

1707 - Unit from Google EARTH N27.80930, W97.42488 TAW

For Unit. TAW

1740 - TCEQ + EPA OSC Request to attend TAW

1800 meeting, CITCO Ropley was to maintain TAW

Seperate Breifing of TCEQ+EPA TAW

1830 TCEQ Reports Secondary Containment TAW

around 1022, 1023, 1024 dry so water; TOC TAW

appearing in lift station; TCEQ sampling TAW

water in secondary containment TAW

Thom A. Wafer 07/21/2009 TAW

TAW

07/21/2009 CITGO REFINERY FIRE TAW

1830 Paul Chocacair replaces TAW

Eric for night Shift. TAW

1935 Update (DATE), Dikes have; Fire looks TAW

like it is gone; Fire monitors still TAW

going until confirmed; Dikes leaking at

1028, and 116+117. Damaged Equipm

due to high water, Water levels TAW

if rain could jeperdize Equipment

that is vital. Safety risk; CITGO TAW

Needs to get water out of DIKED TAW

AREAS; Heavy rain could Compromise TAW

Tank, Idle Tanks floated. CITGO to TAW

Get list; Preparing to divert TAW

CITGO will sample before release, TAW

TCEQ requests sampling plan; TAW

Most Dikes; Started neutrilizing TAW

water around 116 and 117 around TAW

1700 hours, pH and Flourides TAW

Thought To be only problems; Rain TAW

forcasted for Thursday and Friday TAW

CITGO will shut down monitors TAW

air monitor if HF detected; Fire TAW

Monitors will be Turned on. TAW

Thom A. Wafer 07/21/2009 TAW

TAW

8 TO-0001-09-07-07 · 20406.012.001.0451.01

07/21/2009 CITGO REFINERY FIRE

1950 EPA REQUESTS written briefings; TAW

CITGO ARGUES/ if no requirement they TAW

will NOT DO IT. CITGO TAW

2030 DEPART SITE TAW

Thomas A. Walker 07/21/2009

TO-0001-09-07-07 20406.012.001.0451.01 9

07/22/2009 CITGO REFINERY FIRE

0650 Arrive on site. Daniel Escobar TAW

indicated ~~no~~ fire confirmed out at 2100

Small water flows for HF leaks TAW

0719 Briefing begins TAW

FIRE remains out. Water still being TAW

used in some areas, several(2)LPG + TAW

one HF leaks water being sprayed on TAW

First Aid for heat related concerns TAW

HF monitoring in unit no detect TAW

4,000 gpm TAW

pH around(16+17) 2.8 → 3.8 TAW

WATES storage stable not decreasing TAW

1002(product-No boilOffS)no longer floating TAW

16,000,000 gallons estimated stored for TAW

fire TAW

0805 Brief over. TAW

0838 - ~~OF005~~ TAW OF004 EAST ADM TAW

CO-0; VOC-3.2, LEL-0, H_2S-0, O_2-20.9

HF no color change; IDLING TAW

TRUCKS upwind of monitoring point TAW

0844 - ~~OF004~~ OF003 WEST ADM silos. TAW

CO-0ppm; VOC 2.7ppm; H_2S, 0ppm, O_2-OR 20.9

LEL-0%; HF no color change; TAW

Thomas A. Walker 07/22/2009

TO-0001-09-07-07 20406.012.001.0451.01

07/22/2009 CITGO Refinery Fire

0848 OF005; 0.25 mile west ADM Silos TMW
CO-0ppm; VOC 2.3ppm; H_2S-0; LEL-0% TMW
O_2 20.9%; HF No color chang <1.5ppm TMW
0853; OF006; 200 Feet west of GCPC Co, TMW
Silo, NEAR Pile line Road crossing. TMW
N27.82406; W 097.43286 TMW
CO_2-0ppm, VOC-1.3ppm, H_2S-0, TMW
O_2-20.9%, HF No color change TMW
0914-OF001-Elementis Parking Lot TMW
CO-0ppm; VOC-0ppm; H_2S-0ppm TMW
O_2-20.9%; HF No Reaction TMW
0930-OF002 TMW
CO-0; VOC-0.0; H_2S-0, O_2-20.8% TMW
HF no color change, <1.5ppm TMW
1000-Return to CP TMW
1015-Mike Ricke & Christopher Newcomb CITGO TMW
Running out Space to store water TMW
1029-Call MARK HAYES, EPAOSC; To let him TMW
Know About discharge; CITGO Running TMW
out Room; State wants analytical of TMW
what is tank secondary Containment TMW
1140 Mike Ricke brings in Water Hose TMW

Thomas A. Wagner

07/22/2009

TO-0001-09-07-07 ~~200~~ TMW 20406.012.001.0451.01

07/22/2009 CITGO Refinery Fire

TCEQ Chris Livendo 512-239-4515 TMW
clivendo@TCEQ.state.TX.US TMW
L'Oreal Stephey 512-239-1321 TMW
LStephey@tceq.state.tx.us TMW
1445-TCEQ in 1330 meeting will defer TMW
to EPA in Dallas; ENTRIX Doing baseline
biological Assessment. TMW
1615 Briefing, TCEQ wanted more information TMW
total volume HF released, based concentration-
in collected. 4 leaks 2 LPG & 2 HF leaks TMW
HF being captured by water. TMW
1020 & 1015 - cannot be used - Stiff TMW TMW
Still watering at 4,000gpm. Not sure TMW
how leak determined. most likely visual. TMW
Area 116 & 117, duck family - possible impact - TMW
Notified Parks and Wildlife before TMW
corrections called in to CITGO; TMW
pH in 116 & 117 now 6.0. TMW
Claudia Hausch 214-665-6464 TMW
Richard Worster. TMW
USED; Water Volumes and Concentrat TMW
370 barrels in Circuit TMW
Worst Case: Not all released TMW

Thomas A. Wagner

07/22/2009

07/22/2009 CITGO Refinery Fire

As vessels pressarized, 70 barrels based on concentrations water. 70 barrels released from Unit, but contained on site on outfall

Leaks in unit; Safety personnel may be able enter unit tonight to crimp and SEAL.

Laser; Boundries of Unit.

Portable monitors being used.

May divert; Priority 220+221→226 401→405 likes.

4.8→6.7 and circulating 116 to 117

1645 Call Mark Hayes, OSC wants us to hold of shipping additional Equipment in and use last Dreager Tabes tomorrow after breifing.

1845 Depart Site

1915 Recieve call from Paul Choucair, CITGO By-pass to ship channel beginning, Will sample at 4-hour intervals for Permit perameters and flouride; Permit storm water parameters. possibly need to clarify.

Thom A. Walz 07/22/2009

07/23/2009 CITGO REFINERY FIRE

0650 START-3 Arrive on site; START-3 Thomas Walz, Patrick Bond.

0715 First Sample at 0200 07/23/2009.

Second Sample at 0600 07/23/2009

Began pumping 0140 07/23/2009

Collected baseline at Dock #. 0640

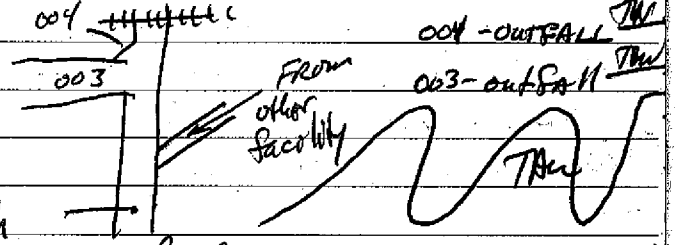
Outfall 004; Estimated at 3500gpm

Monitors onsite flow decreased to 3,000gpm may have been tempory decrease

220 series and 301+302 areas being drained. 220 series began at 0145 ≈ 1,500gpm

301+302 began at 0530 ≈ 2,000gpm

Information above from Paul Choucair



004 Buried drainage pipe until enters ditch.

Analyzing for Storm water Permit; pH and Flourides

Debbie 4869; Sevilla; Nathan Reeves 5407

Thom A. Walz 07/23/2009

07/23/2009 CITGO Refinery Fire, Corpus Christi

0843 - OF006 - CO - 0ppm; VOC - 7.1ppm - H_2S -
O_2 - 20.9%; HF - No reaction or Color Change
3 pictures from OF006;

0851 - & OF005 - CO - 0ppm; VOC - 2.9ppm;
H_2S - 0ppm; 20.9% O_2; HF No Reaction
3 picture Panarama

0858 - OF003 - CO - 0ppm; VOC - 2.4ppm; H_2S - 0ppm
20.9% O_2; HF No Reaction - 3 photo pan
Multi Rae - A87635
Dreager Pump - ARSK-F008

0903 OF004 - & Down wind of idling
Trucks; CO - 0ppm; VOC - 1.6ppm; H_2S - 0ppm
20.9% O_2; HF - 0
Camera - A69935
GPS - A69744

0920 - OF001 - Elements Parking lot
CO - 0ppm - VOC 1.1ppm; H_2S - 0ppm; 20.9% O_2
HP no color change;
Wind out of South west to West
3 pictures Pan

0931 OF002 - CO - 0ppm; VOC - 0.0ppm; H_2S 0ppm
20.9% O_2 - HF No color change
1 picture - ~~SE~~ SW;
Wind from SE

Thru A. Wafer 07/23/2009

07/23/2009 CITGO Refinery Fire, Corpus Christi

0 401 and 300 series

1524 - Update - Completed 116 + 117 Dike
Area - Other Dikes no pH issues
Currently - 301 + 302 to Outfall 002
200 series Tank + 401 Dike Area.
Estimated ≈ ~~200ppm~~ 2000gpm
Next Tanks 900 Series
Fluoride and TOC - 20's
2003 + ~~260~~ Area
2116 + 2117 Tanks full being run to
waste water.
Hector Gonzalez, + Melony
Salt Water Skill pumping into ~~260~~
2003 Tank secondary Containment,
Seal Tech - will enter unit soon
Air Monitoring nothing at Unit Parameter
Oak Park Ditch
1730 Depart facility

Thru A. Wafer 07/23/2009

07/24/2009 CITGO REFINERY FIRE.
Seal Tech — TAW
0650 Return to site — TAW
0845 1307, 7.67pH — TAW
900+401 Tank Secondary Containment — TAW
2003 Tank discovered — TAW
301+302 — TAW
Seal Tech installed 2 Clamps on 2of 4 leaks for HF; Still in level A — TAW
Butane Trough flare gas recovery — TAW
Dike 116+117; higher Flouride Area — TAW
112→115ppm flouride; Deep Well; looking for deep well disposal with barge berth.
Fence chicken wire to limit deck access to Tank Batteries Secondary Containment
Possible benzene in 116+117 water, CITGO Analyzing for benzene — TAW
Duff Hawes; Woodgroup maybe now of Deep Well. — TAW
4 UNKNOWN; 2 SEALED — TAW
Seal Tech Company doing leak seals — TAW
0944 0900 Briefing Complete — TAW
1008 - OF006- HF no reaction ≥ 1.5ppm — TAW
CO-0, VOC- 2.3; H_2S-0; 20.9% O_2 — TAW
Thomas A. Wafer 07/24/2009 — TAW

07/24/2009 CITGO Refinery Fire Corpus Christi
1018 HF no reaction or color change at 20 or 40 ppm
CO-0; VOC-1.0ppm, H_2S-0ppm, 20.9% O_2
OF005 —
1027-OF003- HF No reaction or color — TAW
CO-0; VOC-0.1ppm; H_2S-0ppm, 20.9% O_2 — TAW
1545 Briefs, 1029→900; — TAW
900→1022→ Off Area — TAW
Refilling 10 — TAW
Getting set up To process 116+117 — TAW
Diked area Through Tanks 116+117 — TAW
Successful in closing all ground — TAW
level leaks; Left with one — TAW
butane/HF leak in upper levels — TAW
One left at top of Settler — TAW
3/4 inch Vent line; Can only be — TAW
accessed with Man basket. — TAW
Manways to Areas Damaged by — TAW
fire. HF monitors hope for go ahead — TAW
by Forensics to Repair. — TAW
Chris Adams - — TAW
Just finished stopping ONE LEAK — TAW
Looking at decreasing water flow on — TAW
with —
Thomas A. Wafer 07/24/2009 — TAW

07/24/2009 CITGO Refinery Fire, Corpus Christi

1742 - EPA 904720 - HF-0, VOC 1.1 @.0 Cl2, LEL 0% VOC 20.9% OF 0006. WIND FROM EAST — TAW

	HF ppm	VOC ppm	Cl_2 ppm	LEL %	O_2 %	WIND From
OF0006 1742	0	@1.1	0.0	0	20%	EAST
OF0005 1748	0	0.9	0.0	0	20.9	EAST
OF0003 1752	0	0.8	0.0	0	20.9	EAST
OF0001 1805	0	0.3	0.0	0	20.9	EAST
OF0002 1815	0	0.1	0.0	0	20.9	EAST

1915 Meeting. Entrex Bird Expert Here; Pat TAW Deep well; Water discharged; spreadsheet Working on; No number yet. Adding monitor to outfall 004; One Settler leak Water Pooled; May have shut down one monitor; 1030-1028 - Static; will sample for discharge. Discharge 3,000gpm, Vapor Suppresion at about 3,000gpm as Well. — TAW

1945 Depart Facility — TAW

Thom A. Wafer 07/24/2009

07/25/2009 CITGO Refinery Fire, Corpus

0650 ARRIVE Facility — TAW

MARK — TAW

0800 - Able to successfully crimp vent line on settler. They identified leak on 12 inch line; Packing gland. steam line leak. Instrument air. Smaller leaks, leaks most likely butane; with Trace of HF. Still no release from Unit Looking to go to Curtain; Continue to pump from Lake, 12,000,600 gallons discharged through 004. Pumping from 900 series, 200 series, 1031 2003 Tank test with Flouride of 6ppm now to Oak Park (004) - Product - Unit has only 4psi left in system — TAW

0820 Relay instruction to OSC Mark Hays he indicate START Coal de mob — TAW

Location	Time	TAW	HF ppm	VOC ppm	Cl_2 ppm	LEL %	O_2 %	WIND Dir.
~~OF0006~~	~~0956~~							
OF0006	0956		0.	1.8	0.0	0	20.9	SE
OF0005	1001		0	2.2	0.0	0	20.9	SE
OF0003	1005		0	2.2	0.0	0	20.9	SE
OF0004	1008		0	1.9	0.0	0	20.9	SE
OF0002	1021		0	1.0	0.0	0	20.9	SE
OF0001	1030		0	0.7	0.0	0	20.9	SE

Thom A. Wafer 07/25/2009

07/25/2009 CITGO REFINERY FRE

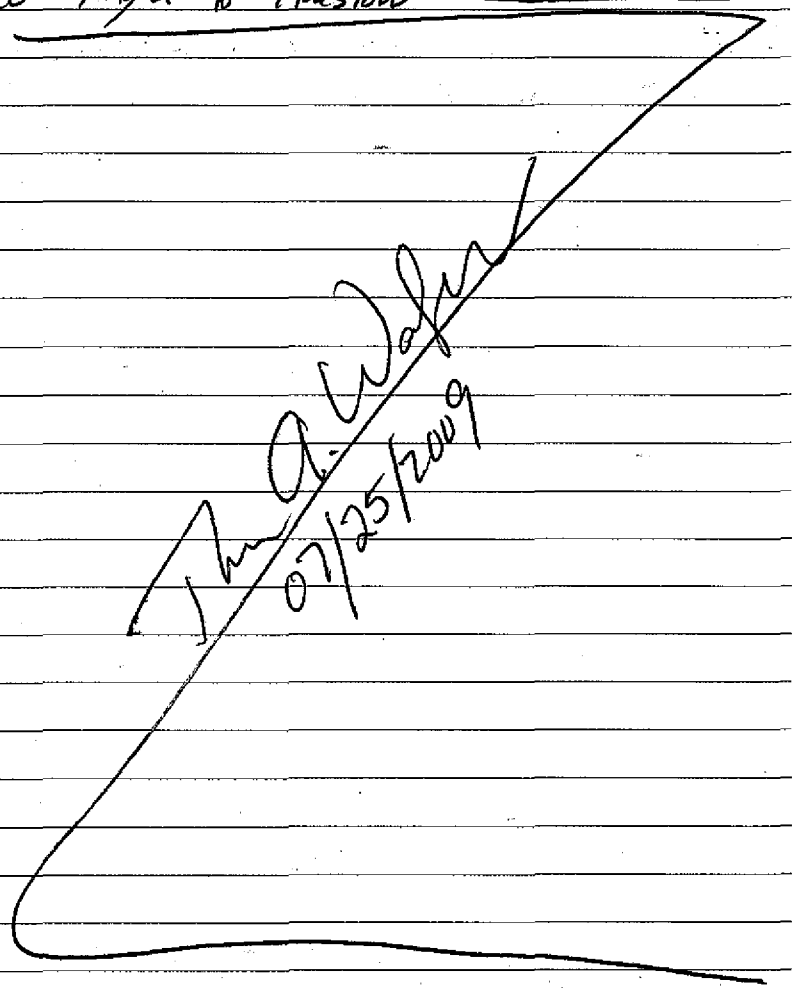
1050 - Return to CITGO OFFICES — JW

1100-1200 - Lunch with TCEQ — JW

1210 Depart CITGO OFFICES — JW

1315 Ship Instruments to Houston — JW

1640 Flight to Houston — JW

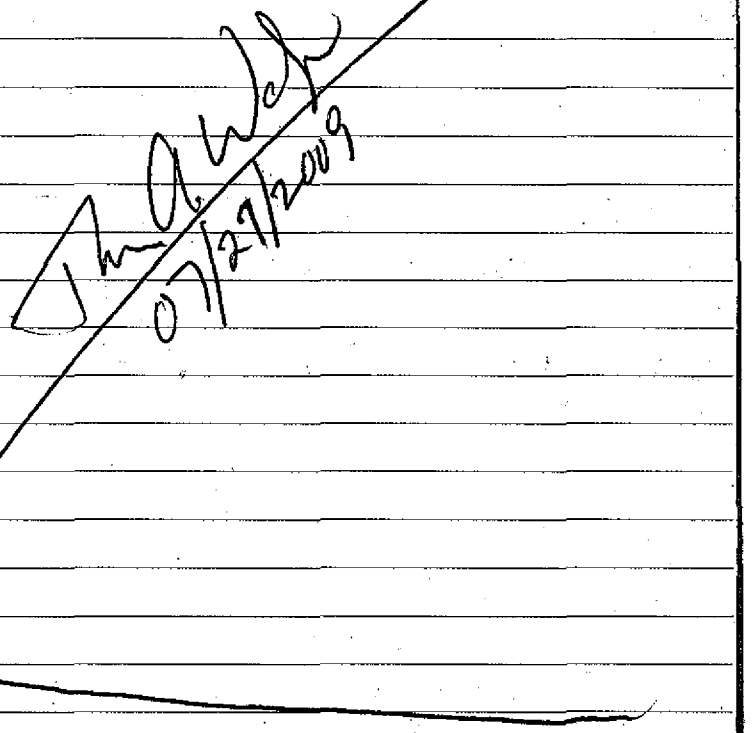


07/27/2009 CITGO REFINERY FRE

0930 PREPARE DRAFT POLREPS JW for MARK HAYES, OSC — JW

1035 READ POLREP DRAFT to MARK HAYS — Post CORRECTED VERSION ON OSC webpage

1724 RECIEVE notice from OSC HAYES — JW To Remob to site PREPARED to monitor and stay SEVERAL days.



07/28/2009 CITGO REFINERY FIRE Corpus Christi

0600 ARRIVE office to prepare costs for project; TW

0830 ARRIVE RES (warehouse) locate gear + monitoring equipment; Rental vehicle TW

10:00 DEPART HOUSTON TW

14:00 ARRIVE CITGO TW

1405 Contact TCEQ - Roger Bennett, he will be here for 1500 briefing. TW

1410 Contact EPA-OSC Mamie Hayes, confirmed meeting TW

1500 - Mark Cheesemore + Christopher Assessment Team Entered; Potential releases, hydrocarbons only; Monitors will be installed. TW

Fresh water being flushed to monitors TW

will then Flush restart Fire fighting system

Began yesterday - will collect discharge; 004 only running 10 → less ppm Flouride

001 in compliance except for flouride at 57 ppm. TW

Progress using 3,000 gpm into Unit, discharging 3,500 gpm from 004 outfall

Just standing to install replacement

TW 07/28/2009

07/28/2009. CITGO Refinery Fire, Corpus Christi

1500 - monitors and repair the repairable TW

TCEQ sampling 2 per day TW

No moved any water from 116 + 117 TW

Secondary containment. TW

Looking to treat with RO on IOW TW

Exchange resin. TW

116 + 117 got first flush fire fighting TW

and vapor suppression TW

No air detections; No HF outside TW

of unit; All clear not issued. TW

Investigation System running - 1 → 1.5 lbs psig. - Removing all cans prior to decon. Plan to decon Exterior. TW

LOCATION	TIME	HF ppm	VOC ppm	Cl_2 ppm	LEL %	O_2 %	WIND
OF0001	1601	0	1.0	0.0	0	20.6	SOUTHEAST
OF0002	1609	0	0.6	0.0	0	20.7	EAST SOUTHEAST
OF0006	1625	0	0.0	0.0	0	20.9	SOUTHEAST
OF0005	1628	0	0.0	0.0	0	20.9	STRONG SOUTHEAST
OF0003	1632	0	0.0	0.0	0	20.9	SOUTHEAST

TW

1545 DEPART SITE TW

1615 HOTEL DOWNLOAD EDIT POLREP STARTED TW

1830 Complete Pol Rep TW

TW 07/28/2009

07/29/2009 CITGO Refinery Fire, Corpus Christi

0800 - Area Law 904759 - Unit 3 TW

Bump Test unit 10ppm Cl_2 in N_2 TW

Lot 919784 - 10ppm Cal TW

TW

Location	Time hours	HF ppm	VOC ppm	Cl_2 ppm	LEL %	O_2 %	Wind TW
OF0002	0856	0	1.0	0.0	0	20.7	Southwest
OF001	0907	0	1.0	Cl_2	0	20.9	Southwest
OF006	0923	0	0.9	0.0	0	20.9	Southwest
OF005	0929	0	1.3	0.0	0	20.9	Southeast
OF003	0930	0	0.5	0.0	0	20.9	Strong wind
OF004	— TRUCKS BLOCKING ROCC —						

TW

1000 - All clear sounded at 2025; LASERS Back on detect and activate Water cannon now - working on External decon of unit. TW

Water stopped at 1730 water cannons TW

ASSESSED sound all clear TW

Overall number five discharge from 004 pending; Out side water samples, BETX now detect, flouriden 410ppm; discharge from 004 at 3500gpm; flushing firewater

Thu A. Wafu 07/29/2009

07/29/2009 CITGO Refinery Fire, Corpus Christi

1011 To Same stormwater lift system and Running out sea water - dropping into either stormwater or into secondary Containment used to store fire fighting water. TW

Will be checked TW

Containment Area soil sampling plan in works; TW

11:00 Call OSC Mark Hayes LEFT MESSAGE TW

12:30 Contact OSC Mark Hays obtain list of questions

1. How much seawater has been discharge
2. How much seawater is stored
3. How much freshwater is stored in secondary containment around Tanks 116+117
4. How much fire fighting water was discharged into Tanks 116+117 prior to diversion to secondary containment around 116+117.

1500 - Benzene → cyclohexane; Maintenance on unit 116-117 EQUALIZATION TANKS TW

116-117 Secondary - RO - concentrate Flouride Deepwell injection. TW

118 → 120 ppm Fluoride; Mi TW

116+117 mixed and drained from bottom.

Thu A. Wafu 07/29/2009

07/29/2009 CITGO Refinery fire, Corpus Christi TX
150,000 ~~gallons~~ barrels IN secondary Containment
in 116 + 117 secondary Containment.
FRESH WATER ON Unit Monday or Sunday
1620 Began FIREWATER Flush 07/28/2009
TANK Isolated So NO SEAWATER IN TANK
SEAWATER IN LINES only
004 will be sampled Every 4 hours
until discharge stopps
TANKS 116-117 Filled - They Bottom
drafted into secondary containment
Filled Tanks Again
less than WEEK
TCEQ Samples not fully done, preliminary
data not QA'd.
De-WENTORY Alky unit tomorrow
Monitors OPERATING NO DETECTIONS.
RTFC - Rinery Terminal Fire Company -
Multisector Permit. - No Stormwater
is under NTPDES Discharge Permit.
1556 DEPART CITGO OFFICES

07/29/2009

07/30/2009 CITGO REFINERY FIELD, CORPUS CHRISTI
0800 WORKING WITH AREA RAES SETUP + CHANGE
0830 o Entry of SCRIBE Prep.
1050 Calibrate Unit 3;

LOCATION	TIME Hours	HF ppm	VOC ppm	Cl2 ppm	LEL %	O2 %	WIND
OF002	1107	0	1.3	0.0	0	20.9	
OF001	1116	0	0.8	0.0	0	20.9	Southeast
OF006	1141	0	0.3	0.3	0	20.9	Southeast
OF005	1146	0	0.2	0.0	0	20.9	Southeast
OF007	1150	0	0.0	0.0	0	20.9	Southeast

OF007 N27.81691; W097.41698
OF004 + OF003 WERE BLOCKED BY TRUCKS
1400 Contacted Mark Cheesman - De-inventory
Not began done coordination with CSB
and OSHA.
1523 Calibrating AREA RAE.
Cl2 Lot# 919784
MultiGas Lot#
VOC Lot#
1536 Add Monitor OF008 Johnston Palm Dr.
N27.80640; W097.41727

07/30/2009 CITGO Refinery FIRE, Corpus Christi

Location	Time Hours	HF ppm	VOC ppm	Cl_2 ppm	LEL %	O_2 %	Wind
OF0002	1530	0	0.0	0.0	0	20.9	SE
OF0008	1535	0	0.0	0.0	0	20.9	SE
OF0009	1543	0	0.0	0.0	0	20.9	SE
OF0010	1549	0	0.0	0.0	0	20.9	SE
OF0011	1553	0	0.0	0.0	0	20.9	SE
OF0012	1600	0	0.0	0.0	0	20.9	SE
OF0013	1604	0	0.0	0.0	0	20.9	SE
OF0014	1611	0	0.0	0.0	0	20.9	SE
OF0015	1616	0	0.0	0.0	0	20.9	SE
OF0016	1619	0	0.0	0.0	0	20.9	SE
OF0017	1622	0	0.0	0.0	0	20.9	SE
OF0018	1626	0	0.0	0.0	0	20.9	SE
OF0001	1640	0	0.0	0.0	0	20.9	SE
OF0006	1722	0	0.0	0.0	0	20.9	SE
OF0005	1726	0	0.0	0.0	0	20.9	SE
OF0003	1731	0	0.0	0.0	0	20.9	SE
OF0004	1735	0	0.0	0.0	0	20.9	SE
OF0007	1740	0	0.0	0.0	0	20.9	SE

Thu A. Wofford 07/30/2009

07/30/2009 CITGO Refinery FIRE, Corpus Christi

1541 - OF0009 SW corner Nueces St and Palm Dr N27.80475, W097.41833 TW

1547 - OF0010 SW corner Palm Dr + Minton St N27.80308, W097.41946 TW

1550 - OF0011 SW corner Palm Dr + Koepke St N 27.80230; W 097.41998 TW

1555 - OF0012 SW corner Palm Dr + Noakes St N. 27.80070; W 097.42107 TW

1604 - OF0013 SE NE corner Stillman Ave and Martin Luther King Dr N27.79888, W 097.41910

1609 - OF0014 NE corner Stillman Ave + Hulbert St N27.80043; W097.41813 TW

1613 - OF0015 NE corner Stillman Ave + Minton St N 27.80208 W 097.41702 TW

1617 - OF0016 NE corner Stillman Ave + Noakes St N 27.80285 W 097.41644 TW

1621 - OF0017 NE corner Stillman Ave + Dempsey St - N27.80457, W097.41526 TW

1625 - OF0018 - NE corner Stillman + Summer St TW

1815 - Complete DRAFT POLREP

Coordinate OF0018 27.80618, W097.41417 TW

Thu A. Wofford 07/30/2009

07/31/2009 CITGO Refinery FIKE

0800 FEDEX

0915 RETURN Hotel EMMEN MAP

1000 Unit-8 No call due to Flow Problems

1015 Unit 3 SAME lots As Yesterday

10ppm Cl_2 — 6HF 10.1 Cl_2

100ppm Isobutylene 99.9

50% LEL

1045 SET OF#19, Corner Buddy Lawrence Dr and Oak Park Ave.

N 27.80608, W097.43114

1148 - Bump Test

VOC ISO Butylene 87.8 for 100ppm gas

HF-Cl_2 6-10 reads 3HF-8.8Cl_2

LEL Start 50-20.9O_2 - 47LEL + 22.9

1200 - Call OSC MARK HAYS WITH RESULTS

depart Corpus Christi

I have a WDR 07/31/2009

07/31/2009 CITGO Refinery FIKE

Location	Time hours	HF ppm	VOC ppm	Cl_2 ppm	LEL %	O_2 %	Wind
OF#01	1040	0	0.0	0.0	0	20.9	South → SW
OF#19	1050	0	0.0	0.0	0	21.4	South
OF#02	1056	0	0.0	0.0	0	21.5	South
OF#08	1059	0	0.0	0.0	0	21.6	South
OF#09	1101	0	0.0	0.0	0	21.7	South
OF#10	1103	0	0.0	0.0	0	21.8	South
OF#11	1105	0	0.0	0.0	0	21.8	South
OF#12	1107	0	0.0	0.0	0	21.8	South
OF#13	1111	0	0.0	0.0	0	21.9	South
OF#14	1113	0	0.0	0.0	0	21.9	South
OF#15	1115	0	0.0	0.0	0	22.1	South
OF#16	1116	0	0.0	0.0	0	22.1	South - Southeast
OF#18	1119	0	0.0	0.0	0	22.1	
OF#17	1121	0	0.0	0.0	0	22.2	
OF#06	1138	0	0.0	0.0	0	22.4	
OF#05	1140	0	0.0	0.0	0	22.4	South
OF#03	1143	0	0.0	0.0	0	22.4	
OF#04	1146	0	0.0	0.0	0	22.4	Plume from Steam Right of me
OF#07	1148	0	0.0	0.0	0	22.4	

I have a WDR 07/31/2009

Rixio E. Medina, CSP, CPP
Vice President
Health, Safety, Security,
Environmental Protection
and Shared Services
CITGO Petroleum Corporation

1293 Eldridge Parkway
Houston, TX 77077
Office: (832) 486-5799
Cell: (713) 876-0427
E-mail: Rmedina@citgo.com

CITGO

CHRISTOPHER NEWCOMB
Senior Corporate Counsel
Refining Operations

CITGO Petroleum Corporation

135th Street and New Avenue
Lemont, IL 60439
Phone: (630) 257-4273
Fax: (630) 257-4496
Cell: (713) 315-1535
E-Mail: cnewco1@citgo.com

CITGO

ERIC BIGELOW
Environmental Engineer

Corpus Christi Refinery

Cell: 361-446-1296

1802 Nueces Bay Blvd.
Corpus Christi, TX 78469

PHONE: 361/844-5344
FAX: 361/844-5108

U.S. Chemical Safety and Hazard Investigation Board

CSB

Mary Nikityn
Chemical Incident Investigator

2175 K Street, NW
Washington, DC 20037

Office (202) 261-3609
Cell (202) 510-1432
Fax (202) 974-7655
mary.nikityn@csb.gov

U.S. Chemical Safety and Hazard Investigation Board

CSB

Jeffrey Wanko, P.E., C.S.P.
Investigator

2175 K Street, NW, Suite 400
Washington, DC 20037

Office (202) 261-7622
Cell (202) 302-9507
Fax (202) 974-7622
jeffrey.wanko@csb.gov

U.S. Chemical Safety and Hazard Investigation Board

CSB

Robert J. Hall, PE
Investigations Supervisor

2175 K St., N.W. Suite 400
Washington, DC 20037

Office (202) 261-7610
Cell (202) 378-7306
Fax (202) 974-7617
rob.hall@csb.gov

TO-0001-09-07-07-20406.012.001.0457.01 07/31/2009

ROGER BENNETT
Emergency Response Coordinator
Field Operations Division

Region 14 ■ Corpus Christi

Texas Commission on Environmental Quality
NRC Bldg., Ste 1200, 6300 Ocean Dr., Unit 5839
Corpus Christi, Texas 78412-5839
Direct 361/825-3386 ■ Office 361/825-3100
Fax 361/825-3101 ■ rbennett@tceq.state.tx.us
printed on recycled paper

Thu A.Walker 07/31/2009
END of log book

Southwest Cargo
506 International Dr
La Quinta INN Corpus Christi NORTH | 361-888-5721
5155 I-37 North, CC, TX 78408
FEDEX: 201 S. Padre Island Dr, Corpus Christi 78405

361-537-1477 Roger Bennett. TCEQ
361-446-1296 Eric Bigelow - CITCO
361-774-5883 Paul Choucair - CITCO
361-537-7917 Daniel
361-299-1234 Enterprise - NA17CWS
5961 Highway 44; CC, TX
361-290-0319 Mike Ricke
361-537-7916 TCEQ - Evelyn Yvonne
832-221-9979 [4376] Chris
361-844-4882 Marc Cheesmen

ATTACHMENT K

NRC REPORT NUMBER 912017

NATIONAL RESPONSE CENTER 1-800-424-8802
*** For Public Use ***
Information released to a third party shall comply with any
applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 912017

INCIDENT DESCRIPTION

*Report taken at 12:08 on 19-JUL-09
Incident Type: FIXED
Incident Cause: UNKNOWN
Affected Area:
The incident was discovered on 19-JUL-09 at 08:35 local time.
Affected Medium: AIR INTO THE ATMOSPHERE

SUSPECTED RESPONSIBLE PARTY

Organization: CITGO REFINERY
CORPUS CHRISTI, TX

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

1801 NUECES BAY BLVD County: CORPUS CHRISTI
City: CORPUS CHRISTI State: TX

RELEASED MATERIAL(S)

CHRIS Code: BUT Official Material Name: BUTANE
Also Known As:
Qty Released: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

THE CALLER IS REPORTING THAT A PIECE OF EQUIPMENT FAILED AND RELEASED BUTANE INTO THE ATMOSPHERE. THE BUTANE CAUGHT FIRE. THE AMOUNT OF BUTANE RELEASED IS UNKNOWN. THERE IS ALSO A POTENTIAL RELEASE OF A VERY SMALL AMOUNT OF HYDROGEN FLUORIDE.

INCIDENT DETAILS

Package: N/A
Building ID:
Type of Fixed Object: REFINERY
Power Generating Facility: NO
Generating Capacity:
Type of Fuel:
NPDES:
NPDES Compliance: UNKNOWN

DAMAGES

Fire Involved: YES Fire Extinguished: NO

INJURIES:	YES	Hospitalized:	1	Empl/Crew:	Passenger:
FATALITIES:	NO	Empl/Crew:		Passenger:	Occupant:
EVACUATIONS:	NO	Who Evacuated:		Radius/Area:	

Damages: NO

Closure Type	Description of Closure	Length of Closure	Direction of Closure
Air: N			
Road: N			
Waterway: N			

Major Artery: N

Track: N

Passengers Transferred: NO
Environmental Impact: UNKNOWN
Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

THE RELEASE OF BUTANE HAS STOPPED, HOWEVER, THE FIRE HAS NOT BEEN PUT OUT.
Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

Weather: PARTLY CLOUDY, ºF Wind direction: S

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE
State/Local: TCEQ, PD, FD
State/Local On Scene: PD, FD
State Agency Number: NONE

NOTIFICATIONS BY NRC

CHEM SAFETY AND HAZARD INVEST BOARD (CSB AUTOMATIC NOTIFICATIONS)
19-JUL-09 12:19
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
19-JUL-09 12:19
U.S. EPA VI (MAIN OFFICE)
19-JUL-09 12:26
USCG COMMAND CENTER (MAIN OFFICE)
19-JUL-09 12:19
JFO-LA (COMMAND CENTER)
19-JUL-09 12:19
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
19-JUL-09 12:19
NOAA RPTS FOR TX (MAIN OFFICE)
19-JUL-09 12:19
NATIONAL RESPONSE CENTER HQ (MAIN OFFICE)
19-JUL-09 12:19
SECTOR CORPUS CHRISTI (COMMAND CENTER)
19-JUL-09 12:24
TCEQ (MAIN OFFICE)
19-JUL-09 12:19
TX DEPT OF STATE HEALTH SERVICES (COMMAND CENTER)
19-JUL-09 12:19
TEXAS STATE OPERATIONS CENTER (COMMAND CENTER)
19-JUL-09 12:19

ADDITIONAL INFORMATION

NO ADDITIONAL INFORMATION.

*** END INCIDENT REPORT # 912017 ***

ATTACHMENT L

TDD NO. TO-0001-09-07-07 AND AMENDMENT A

EPA

U.S. EPA
Washington, DC 20460

START3
Technical Direction Document

Response Activities- REMOVAL
Funds (0001)
Weston Solutions, Inc.

TDD #: TO-0001-09-07-07
Contract: EP-W-06-042

! = required field

TDD Name:	Citgo Refinery Fire	! Period:	Base Period
! Purpose:	Work Assignment Initiation	Verbal Date:	07/20/2009
! Priority:	High	! Start Date:	07/20/2009
Overtime:	Yes	! Completion Date:	11/30/2009
! Funding Category:	Removal	Invoice Unit:	
! Project/Site Name:	Citgo Refinery Fire	WorkArea:	RESPONSE ACTIVITIES
Project Address:	1801 Nueces Bay Blvd	Activity:	Emergency Response
County:	Nueces	Work Area Code:	
City, State:	Corpus Christi, Texas	Activity Code:	RV
Zip:	78469	EMERGENCY CODE:	☐ KAT ☐ RIT
! SSID:	A6R9	FPN:	
CERCLIS:		Performance Based:	No
Operable Unit:			

Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)
Previous Action(s):	$0.00	0.0
This Action:	$15,000.00	0.0
New Total:	$15,000.00	0.0

Specific Elements More specifically the contractor shall, - Collect facts regarding the discharge or release to include its source and cause, - Analyze the nature amount and location of discharged or released materials, - Analyze the potential impact on human health welfare and safety and the environment posed by the release of hazardous substances contaminants or pollutants and discharge of oil, - Provide analysis of discharges or releases posing a substantial threat to the public health or welfare of the United States, - Analyze the potential impact on natural resources and property, - Observe and document federal state and private actions taken to conduct a response action, - Input contractor's costs using the EPA cost tracking software Removal Cost Management System (RCMS), - Analyze PRP response documents and actions, - Document PRP activities and provide negotiation support, - Verify PRP compliance with enforcement orders, - Develop public information summaries for Internet distribution, Provide technical advice findings facts recommendations and options., Maintain response capability to respond to discharges/releases or threatened discharges/releases as defined in Subparts D and E of the National Contigency Plan.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Tier 2 Response. Coordinate with OSC Mark Hayes.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriation Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	RVC080	XXX	08	TCD	6A00E	302DC6C	2505	A6R9RV00	C001	$15,000.00

Funding Summary:	Funding
Previous:	$0.00
This Action:	$15,000.00
Total:	$15,000.00

Funding Category
Removal

Section

- Signed by Mark Hayes/R6/USEPA/US on 07/23/2009 04:05:52 PM, according to Cheng Wei Feng/start6

: Mark Hayes **Date:** 07/23/2009

Project Officer Section - Signed by Linda Carter/R6/USEPA/US on 07/27/2009 09:56:27 AM, according to Cl

Project Officer: Cora Stanley **Date:** 07/23/2009

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 07/23/2009 05:42:04 PM, according

Contracting Officer: Cora Stanley **Date:** 07/23/2009

Contractor Section

Contractor Contact: **Date:**

EPA

U.S. EPA
Washington, DC 20460

START3
Technical Direction Document

Response Activities- REMOVAL
Funds (0001)
Weston Solutions, Inc.

TDD #: TO-0001-09-07-07
Amendment#:A
Contract: EP-W-06-042

! = required field

TDD Name:	Citgo Refinery Fire	! Period:	Base Period
! Purpose:	Change Period of Performance, Incremental Funding		
! Priority:	High	! Start Date:	07/20/2009
Overtime:	Yes	! Completion Date:	12/30/2009
! Funding Category:	Removal	Invoice Unit:	
! Project/Site Name:	Citgo Refinery Fire	WorkArea:	RESPONSE ACTIVITIES
Project Address:	1801 Nueces Bay Blvd	Activity:	Emergency Response
County:	Nueces	Work Area Code:	
City, State:	Corpus Christi, Texas	Activity Code:	RV
Zip:	78469	EMERGENCY CODE:	☐ KAT ☐ RIT
! SSID:	A6R9	FPN:	
CERCLIS:		Performance Based:	No
Operable Unit:			

Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)
Previous Action(s):	$15,000.00	0.0
This Action:	$10,000.00	0.0
New Total:	$25,000.00	0.0

Specific Elements More specifically the contractor shall, - Collect facts regarding the discharge or release to include its source and cause, - Analyze the nature amount and location of discharged or released materials, - Analyze the potential impact on human health welfare and safety and the environment posed by the release of hazardous substances contaminants or pollutants and discharge of oil, - Provide analysis of discharges or releases posing a substantial threat to the public health or welfare of the United States, - Analyze the potential impact on natural resources and property, - Observe and document federal state and private actions taken to conduct a response action, - Input contractor's costs using the EPA cost tracking software Removal Cost Management System (RCMS), - Analyze PRP response documents and actions, - Document PRP activities and provide negotiation support, - Verify PRP compliance with enforcement orders, - Develop public information summaries for Internet distribution, Provide technical advice findings facts recommendations and options., Maintain response capability to respond to discharges/releases or threatened discharges/releases as defined in Subparts D and E of the National Contigency Plan.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Amendment A: Changes period of performance and increases funding for additional site monitoring and documentation.

Tier 2 Response. Coordinate with OSC Mark Hayes.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriation Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	RVC080	XXX	08	TCD	6A00E	302DC6C	2505	A6R9RV00	C001	$10,000.00

Funding Summary:	Funding
Previous:	$15,000.00
This Action:	$10,000.00

Funding Category
Removal

Total:	$25,000.00

Section
- Signed by Mark Hayes/R6/USEPA/US on 07/30/2009 03:28:19 PM, according to Cheng Wei Feng/start6
: Mark Hayes **Date:** 07/30/2009

Project Officer Section - Signed by Linda Carter/R6/USEPA/US on 08/04/2009 07:34:25 AM, according to Cl
Project Officer: Linda Carter **Date:** 08/02/2009

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 08/03/2009 11:18:01 AM, according
Contracting Officer: Cora Stanley **Date:** 08/03/2009

Contractor Section - Signed by Robert Beck/start6/rfw-start/us on 08/10/2009 08:03:14 AM, according to

● No
○ Yes

During the past three (3) calendar years has your company, or any of your employees that will be working at this site, previously performed work at this site /facility?

Contractor Contact: Robert Beck **Date:** 08/10/2009